FRENCH PILOTS IN SPITFIRES HELPED DOMINATE THE AIR

WWII

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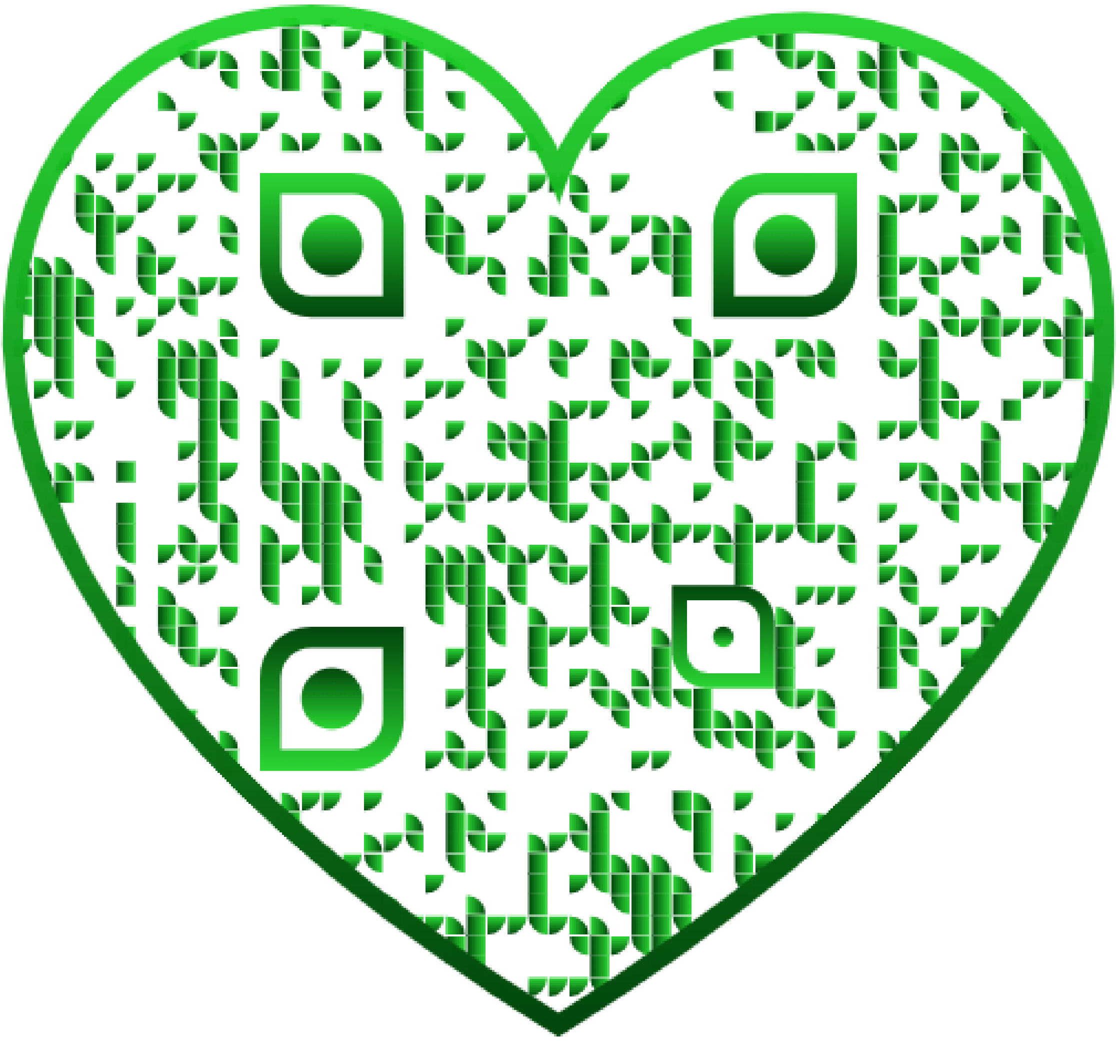
DESERT RAIDERS

British elite soldiers caused chaos behind Rommel's lines

SNIPERS LAY IN WAIT

Death came without warning in the city ruins

★ US MARINE CORPS UNDERWENT RIGOROUS TRAINING ★



The US Marine Corps became skilled jungle warriors, which is why they established the Marine Raiders special ops unit, seen here after capturing the island of Bougainville in 1944.

US NATIONAL ARCHIVES

“THE IMAGE OF BRAVE, SKILFUL WARRIORS IS WIDESPREAD”

Special status in the armed forces

What counts as an elite soldier? It depends on a number of things. Most people today tend to think of difficult and demanding training courses, in which soldiers go through a careful selection process. The image of brave, skilful warriors who seek out these endeavours is widespread and gives them a prestigious place within the armed forces. This special status is often denoted by distinctive items, such as knives, berets or badges.

Historically, however, other aspects have also played a part in achieving prestige. Hard-won victories and exploits on the battlefield, as well as propaganda and myths, have enabled certain units to count themselves among the elite. Special missions and equipment can also contribute to elite status.

In this special edition, you can read not only about some of the most famous units of World War II, but also about troops that have carried out unique missions and undergone particularly difficult ordeals. In addition, we report on individual soldiers who have distinguished themselves in battle.

Enjoy!

WORLD WAR II
ELITE SOLDIERS

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Snipers

ADMIRED AND DESPISED

Throughout history, skilled marksmen have played a crucial role on the battlefield. For just as long, there has been a love-hate relationship between the military establishment and these lone wolves. For the sniper, war is a hunt, akin to the sanctioned murder of targeted individuals.

"THE BATTLE OF STALINGRAD IN PARTICULAR BECAME FAMOUS FOR THE SOVIET SNIPERS' EFFORTS"

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7th Panzer Division – Ghost Division

ROMMEL'S SPEARHEAD

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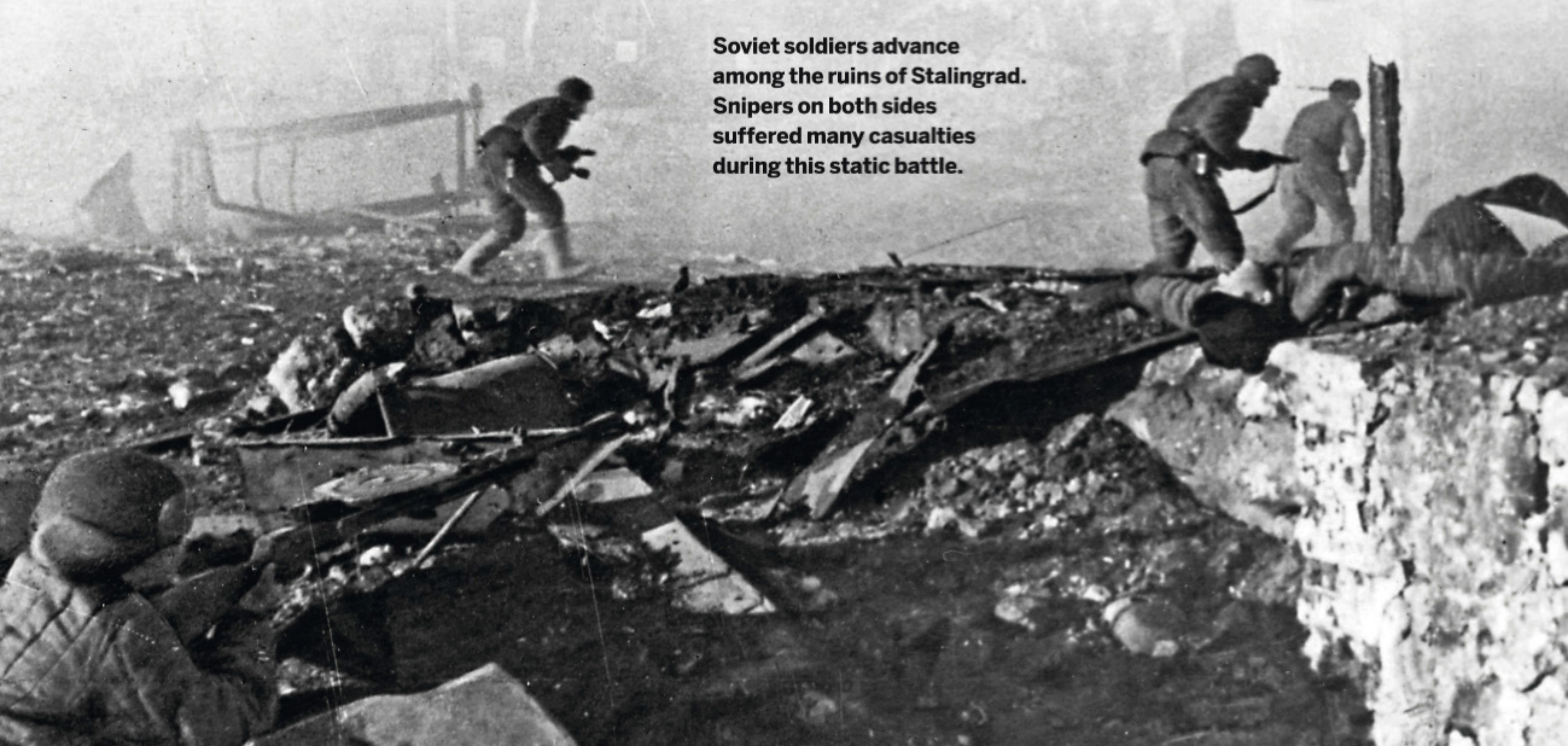
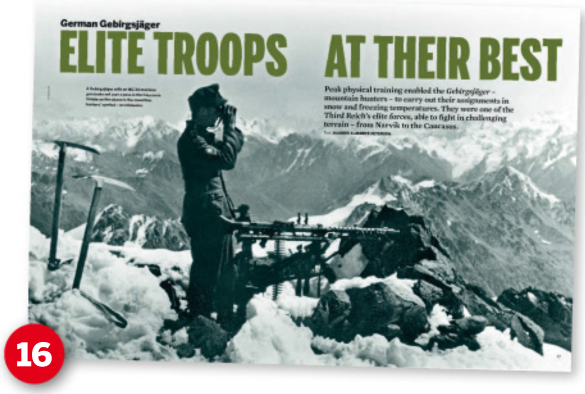


Soviet soldiers advance among the ruins of Stalingrad. Snipers on both sides suffered many casualties during this static battle.



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German Gebirgsjäger

ELITE TROOPS AT THEIR BEST

Peak physical training enabled the Gebirgsjäger – mountain hunters – to carry out their assignments in snow and freezing temperatures. They were one of the Third Reich's elite forces, able to fight in challenging terrain – from Narvik to the Caucasus.

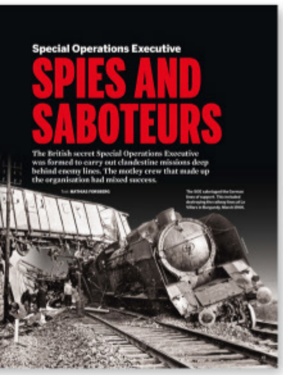
28

US Airborne

LIVING HIGH ON A LEGEND

US paratroopers' efforts during World War II are famous, thanks to TV shows and movies. In reality, however, their operations were fiercely debated and rarely went as planned.

"THIS JUMP INTO UNKNOWN TERRITORY WAS STRANGELY INVIGORATING"



Special Operations Executive

SPIES AND SABOTEURS

The British secret Special Operations Executive was formed to carry out clandestine missions deep behind enemy lines. The motley crew that made up the organisation had mixed success.

62

US Marines

HOW THE MARINES BECAME AN ELITE UNIT

Despite being sent to fight bloody battles on barren beaches against a fanatical foe, the US Marines accomplished their mission. That's why these battle-hardened troops are now considered an elite unit.

72

Combat engineers

TECH ON THE BATTLEFIELD

Specialist regiments constructed bridges, blew up bunkers, built airfields and frequently fought on the front line. But despite being one of World War II's most important military branches, combat engineers are often overlooked by historians.

"THE 291ST BATTALION HAD MANAGED TO BRING A SMALL FORCE OF 12 MEN TO THE BRIDGE AT HÂBIÉMONT"

During the invasion of France in 1940, Rommel took bold risks and pushed the 7th Panzer Division to its limit. It would make a name for itself as one of the greatest armoured units in history when the French thought its soldiers appeared out of nowhere – like ghosts.

102

"SOUTHERLY WINDS BLASTED SAND THAT PIERCED THE SKIN LIKE NEEDLES"

Long Range Desert Group

DESERT WAR MASTERS

The LRDG had licence to roam freely in its specialist vehicles, wreaking havoc behind German and Italian lines in the Libyan desert. This British special force was founded by Major Ralph Bagnold, a pioneer of desert exploration.

116

Forces Françaises Libres

At the front to free France

Almost 200 French commandos scrambled ashore at Sword Beach on D-Day. They were a small but symbolically important part of the Allied force that liberated France from German occupation.

"FOR THE SOLDIERS WHO HAD LIVED IN EXILE FOR SO LONG, THE WAIT WAS FINALLY OVER"

SOVFOTO/GETTY

Snipers

ADMIRED AND DESPISED

Throughout history, skilled marksmen have played a crucial role on the battlefield. For just as long, there has been a love-hate relationship between the military establishment and these lone wolves. For the sniper, war is a hunt, akin to the sanctioned murder of targeted individuals.

Text: **RASMUS KJÆRBYE PETERSEN**

The first rifled firearms were developed in the 16th century, reportedly by Gaspard Kollner of Vienna and Augustus Kotter of Nuremberg. They were both expensive to make and took a long time to load, but were extremely accurate, which made them suitable for hunters. Nevertheless, European commanders preferred to equip their soldiers with much simpler smoothbore muskets. In other words, they were happy to sacrifice accuracy in exchange for the ability to quickly fire large amounts of lead in the general direction of the enemy.

However, hunters and other riflemen were still able to carve themselves a small niche on the battlefield. Marksmen were able to select specific targets – in particular enemy commanders and non-commissioned officers – and kill them from range. This way, it was possible for a few select shots to put an end to an entire army. But at the same time, during a period when the aristocracy still dominated the officer corps, such tactics were ►

“THE BATTLE OF STALINGRAD IN PARTICULAR BECAME FAMOUS FOR THE SOVIET SNIPERS’ EFFORTS”

A German soldier has been captured in a Soviet PU-sight. The image is a montage, but shows what it might have looked like when the lone wolves of war hunted each other on the Eastern Front. Breslau, January 1945.

ULLSTEIN/ALL OVER PRESS

viewed as a socially unacceptable and morally reprehensible way to wage war.

Consequently, when the first official sharpshooting units were formed in the 18th century, they were deployed as elite infantry, lining up in formation on the battlefield like most other regular units. To put it mildly, this was not the optimal way to employ them. Although the snipers' first shot could be devastating to the enemy, they were often knocked out before they could fire again.

However, when one side in a battle came under pressure, moral considerations were conveniently forgotten and snipers were left to operate on their own terms. The North American War of Independence became notorious for the extensive use of snipers by the Americans. They fought as guerrillas, ambushing and targeting British officers.

This slightly schizophrenic attitude towards sharpshooters – and the even more specialised snipers that succeeded them – came to characterise the whole of the 19th century and much of the 20th. Marksmen's skills were valued only when they were really needed; otherwise, they were considered of little use.

IN MOST WARS during the 19th century, sharpshooters were given opportunities to develop their craft, but as soon as the wars were done, they returned to a regular infantry role, for which they were ill-suited. This meant that important experience was lost. In the second half of the 19th century, as rifles became cheaper and easier to load, all infantry units were equipped with them. All infantrymen underwent thorough weapons training, so it was thought reasonable to assume that sharpshooters were no longer needed.

When World War I broke out in 1914, there were no dedicated sniper units among the European armies. Few thought they'd be needed during the war's early stages when both sides expected it to be brought to a swift and victorious conclusion. Only one country chose to change course immediately at the outbreak of war: Germany.

The Germans had a long tradition of sharpshooters with their *Jäger* (hunter) units, but even these had evolved into light infantry units by the end of the 19th century. They may have enjoyed significant prestige and a good level of esprit de corps, but their training was not significantly different from that received by the rest of the army.

HUNTING WAS STILL an important German tradition, which meant that the country had a large reserve of skilled marksmen with both knowledge and experience of what was required to survive on their own in the wild. However, they weren't grouped together in specialist units but scattered across the army.

“THE GERMANS HAD A LONG TRADITION OF SHARPSHOOTERS WITH THEIR JÄGER (HUNTER) UNITS”

Germany's advanced optical industry was also of great importance. Modern repeating rifles combined with new aerodynamic projectiles provided high accuracy at such long ranges that the shooter's visual acuity became the weakest link. By attaching a telescopic sight to an ordinary Mauser Gewehr 98 rifle, the Germans were able to turn it into a precision weapon with deadly effect.

As the war developed, the German General Staff quickly understood the need for sharpshooters – or snipers as they began to be known in other countries – but instead of restoring the old units, they simply distributed a large number of sniper rifles evenly between all front-line regiments. It was then up to the officers to select suitable recipients.

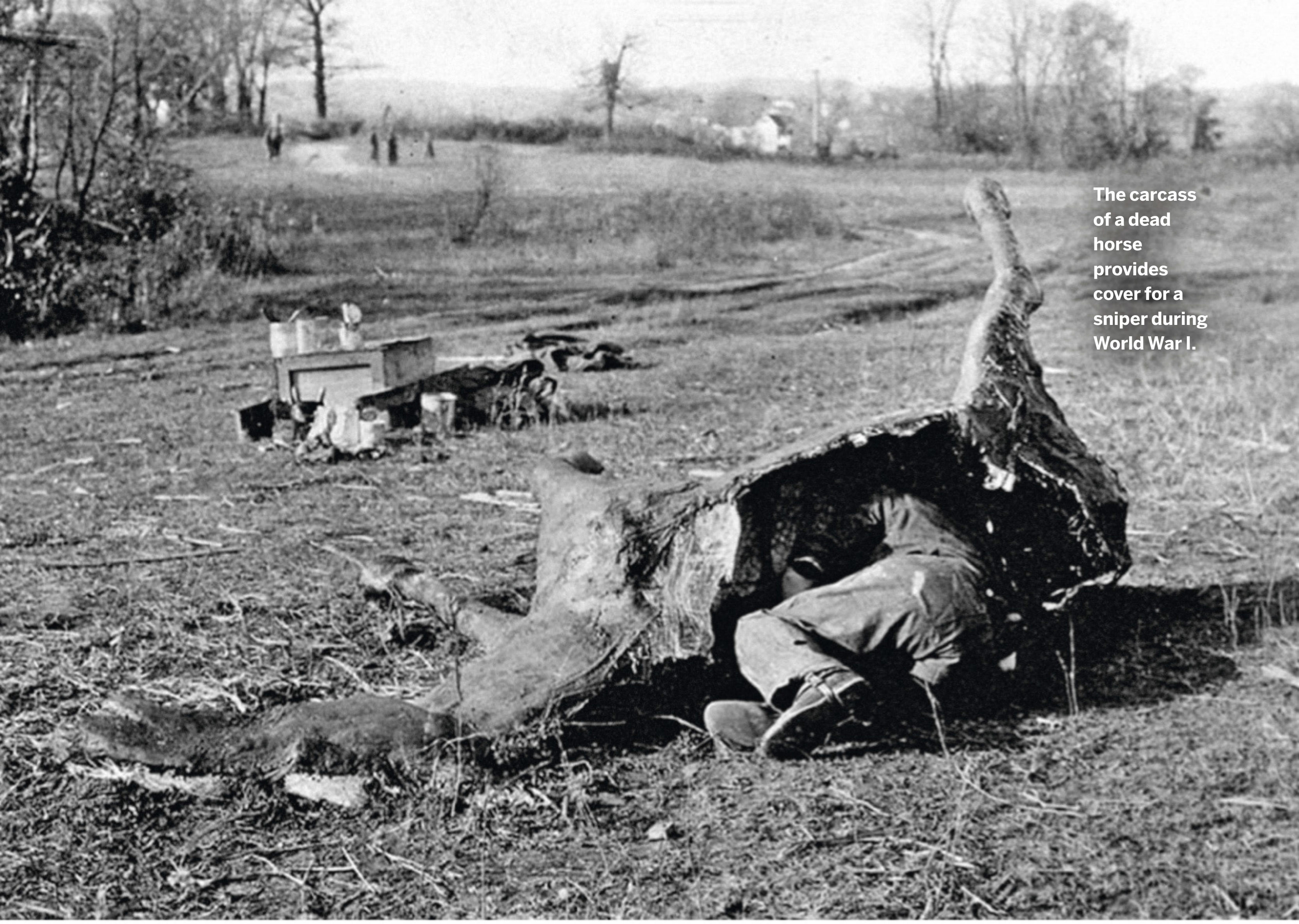
In some regiments, rifles were simply handed out at random to soldiers, who often received no instructions on how to use the weapons other than what was written in the small manual that came with the scope. Others, who took marksmanship more seriously, turned to the handful of experienced hunters in the regiment. The most responsible officers also made sure that experienced men were paired with less experienced partners to train.

The Germans' attitude meant that they quickly established groups of (typically) competent snipers fairly quickly throughout the army.

TRENCH WARFARE WAS an ideal environment for snipers. The static fronts enabled them to get to know their area, both by studying maps and by going out on night patrols in no-man's land. They had plenty of time to set up permanent positions that were either well camouflaged or protected by steel plates. In addition, they had access to good maps and lists showing the distance to various landmarks in the terrain.

The German officers gave their snipers free rein to leave their units and move along the trenches – or even leave them – to find good places from which to fire. In this way, the snipers got to know every detail of the landscape. They proved almost as valuable as scouts as they were as regular snipers.

Crucially, the German snipers' bullets had a significant effect. Most soldiers were able to put up with random deaths caused by stray bullets,



The carcass of a dead horse provides cover for a sniper during World War I.

shells or gas. Many could imagine that they would survive. But a sniper was something else entirely. A particular soldier would be targeted like prey and instant death came with no warning.

It frightened and demoralised the troops more than anything else on the battlefield. Among the British, the word 'sniper', previously an obscure word used to describe hunting snipe waders in India, suddenly became part of the vernacular. It evoked chills and aroused disgust.

BRITISH COMMANDERS MADE a half-hearted attempt to emulate the Germans. Instead of developing a standardised sniper rifle, they bought a wide range of hunting rifles and several different sniper scopes and distributed them among the units along the front. But in Britain, hunting traditions were different. There were not nearly as many soldiers with the talent to use the advanced weapons that were distributed. There was some justification for the earliest British sniper units being dubbed "suicide squads".

To improve the situation, a few enterprising officers took matters into their own hands. One of these was the big-game hunter Hesketh Hesketh-Prichard, who suggested some simple methods to improve British sharpshooters' chances of survival. For example, the parapets of the trenches were constructed in a more irregular fashion, so that a head sticking up would not be quite so conspicuous. Sniper positions were reinforced with double steel plates, while German sniper positions were revealed using a clever combination of periscopes and tempting targets in the form of dummy papier-mâché heads – complete with smoking cigarettes. These were kept alight by a soldier hidden beneath the parapet, who puffed through an ingenuous rubber tube that ran up to the dummy's mouth.

In time, Hesketh-Prichard received official support to start formal sniper training. By 1916, all British armies had their own SOS (Scouting, Observation and Sniping) schools behind the front lines. By this time the Germans had also formalised ▶

“THEY FOUGHT AS GUERRILLAS, AMBUSHING AND TARGETING BRITISH OFFICERS”

Feared World War II Snipers

Deadly at 1,100 metres

Matthäus Hetzenauer

1924–2004

★ Austrian sniper in the German 3rd Mountain Division. Hetzenauer was credited with 345 official kills on the Eastern Front. Like other German snipers, he was often sent behind enemy lines immediately before a German offensive to create confusion in enemy ranks by killing officers. He used a slightly more powerful scope than normal, one with 6x magnification, which allowed him to operate at night by moonlight. It has been confirmed that Hetzenauer managed to kill one soldier at a distance of 1,100 metres.

Hero's memoir became film

Vassily Zaytsev

1915–91

★ Worked as a clerk in the Soviet Navy but was transferred to an infantry unit after the German invasion in 1941. It was during the Battle of Stalingrad that Zaytsev proved an extremely skilled sniper. He probably racked up around 400 kills, was decorated as a Hero of the Soviet Union and wrote a book about his experiences, in which he describes a long duel with a German sniper known as Erwin König or Heinz Thorvald. The duel is the basis for the 2001 Hollywood movie *Enemy at the Gates*. However, the veracity of the story and the existence of Erwin König are both disputed.

Lyudmila Pavlichenko with her SVT-40 automatic rifle and PU sight.

SOVFOTO/GETTY

"White Death" snuck up close

Simo Häyhä

1905–2002

★ Finnish sniper who, with at least 505 kills (the highest confirmed number in history) during the 1939-40 Winter War, was nicknamed the "White Death". Häyhä's tactic was to sneak so close to his target that he didn't need to use the telescopic sight. In March 1940, Häyhä survived being hit in the lower jaw by a Soviet sniper's explosive bullet, which left him disfigured and invalided out of the rest of the war.

The most notable female Soviet shooter

Lyudmila Pavlichenko

1916–74

★ The most famous of the approximately 2,000 Soviet female snipers during WWII. In the first year of the war, Pavlichenko secured 309 kills, including 36 snipers. Wounded in June 1942, she was relieved of front-line duty because she was considered to have great propaganda value and was instead sent on goodwill tours to the US and Britain.

“THE SOVIET SHARPSHOOTERS WERE NO MATCH FOR THEIR FINNISH COUNTERPARTS”

their training, but their schools could not match the British in terms of rigour, zeal and ingenuity.

In addition to learning to shoot in both daylight and darkness, marksmen were taught how to judge distance and wind speed, move in terrain, reconnoitre and read maps. They also learned to lie still for hours waiting for a target. The British came up with many new ideas, such as having all snipers assisted by an observer with a telescope. They created the ghillie suit (see page 13), a camouflaged suit now almost synonymous with military sniping. You could say that the modern sniper was invented in the SOS schools, and everyone else soon adopted British methods.

AT THE SAME time as this educational revolution, the British Army also began to prioritise the purchase of sniper rifles. The result, a standardised SMLE rifle with a telescopic sight, was not perfect, but was at least available in sufficient quantities. In 1916, one sniper officer described how it had begun “to rain telescopic rifles”. The fortunes of the sniper war were now turning in the Allies’ favour.

After WWI, echoing earlier wars, the British suddenly appeared to forget everything to do with this distasteful type of warfare, even though they had become experts in it. The SOS schools were closed in 1919, specialised sniper units disbanded and sights removed from the rifles and sold.

Hesketh-Prichard tried to counter the trend by publishing a book in 1920, *Sniping in France*, in which he summarised everything he had learned. Among sniping instructors, this book is still considered a reference work, but it failed to prevent the specialist sniper from disappearing from the British Army. And the British were far from alone. Almost none of the major powers had either the means or the will to maintain such a specialised corps during the interwar years. The one major exception was the Soviet Union.

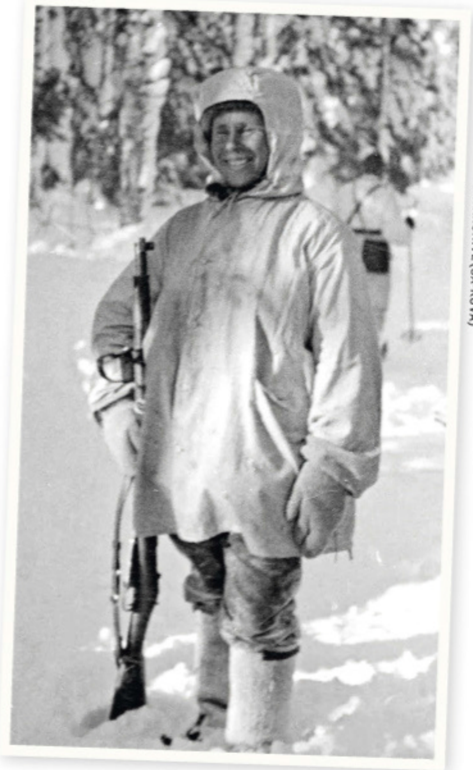
IN 1932, A Soviet sniper movement was organised under the leadership of Defence Commissar Kliment Voroshilov. In 1939, the Russians claimed that as many as six million soldiers qualified for the Voroshilov sniper badge. In the Red Army, there was almost a cult around the concept of a sniper.

In fact, they were sharpshooters rather than snipers, because they were also expected to fight as ordinary infantrymen. Their training focused almost exclusively on precision shooting, while scouting duties, camouflage and field movement were ignored.

When the Soviet Union invaded Finland in 1939, the Soviet sharpshooters were no match for their Finnish counterparts, who were masters of moving quickly without being seen behind Soviet lines and who knew how to exploit the Soviet Mosin-Nagant rifles with PE-type sights that they captured in large numbers. After this humiliating experience, much more emphasis was placed on field training and winter warfare at the Soviet sniper schools. It was all very last minute.

When the Germans invaded the Soviet Union in 1941, they were ill-prepared for the threat posed by the Soviet snipers. There were, of course, still many soldiers in the German army with a talent for sharpshooting – and there were leftover rifles with telescopic sights from WWI – but proper sniper training had not been re-established in Germany. The Germans assumed that their new type of mobile warfare would make snipers obsolete. Although experience in France in 1940 had shown that a few snipers could hold off the advance of an entire motorised column for several hours, the problem was limited in scope and so had been ignored.

When the Red Army collapsed around them, Soviet snipers were often able to leave their infantry operations and use their experience in Finland to serve as effective rearguards. Again and again, the German advance was stopped by, in some cases, single, well-concealed snipers who defended their positions with fierce determination.



FINNISH WARTIME PHOTOGRAPH ARCHIVE (SA-KUVA)

Simo Häyhä with his Russian Mosin-Nagant rifle.

There were good reasons not to be captured. Summary executions of snipers were common in all theatres of war, but on the Eastern Front snipers found themselves subject to particularly barbaric forms of execution.

IT WASN’T LONG before German officers requested their own snipers to fight the Soviets. Improvised rifle schools appeared behind the front and were soon followed by more established

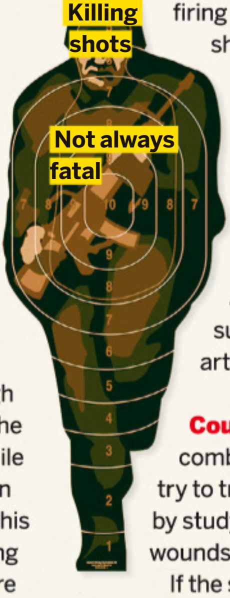
Text continues on page 14

Psyche as crucial as weapon

Weapons get better, sights sharper. But the sniper's job is still the same – to take out key targets.

Selecting victims. Enemy officers came into the snipers' sights early on. As a direct result, officers today often wear field attire indistinguishable from those of other soldiers. But snipers have learned to look for other signs, such as who the soldiers are saluting, or who is looking at maps or talking on the radio.

During World War I, German riflemen often identified British officers by their moustaches. Other valuable targets include artillerymen, machine gunners, radio operators, other specialists (not least enemy snipers) and equipment such as parked aircraft.



Aim. Some snipers go for the hard shot through the head to make sure the victim dies instantly, while others prefer a safe hit in the torso, even though this is not always fatal. During World War I, snipers were often advised to aim for the teeth. The bullet was guaranteed to kill the victim both when the shooter hit the bullseye or if he misjudged the distance and the bullet hit higher (in the forehead) or lower (in the throat).

Bait. Snipers often use decoys to make the enemy appear. In Iraq, for example, US snipers left behind explosives or ammunition. This was so that they could shoot Iraqis who took interest in what was left behind.

During World War II, a sniper could use a helmet on a stick to get another shooter to reveal his position with a shot.

Hide. To stay hidden, snipers usually change position after firing a certain number of shots. In most cases, the sound made by the shot is the most revealing. Since silencers are rarely an optimal solution, they instead try to hide the sound by firing at the same time as other loud sounds, such as explosions from artillery shells.

Countermeasures. When combating snipers, soldiers try to triangulate their position by studying – for example – wounds and bullet holes.

If the sniper needs to be stopped quickly, an artillery bombardment of the area can be ordered. The marksman may not be killed, but he is usually forced to change position.

A more thorough method is to send out a dog patrol to sniff him out, but often the most reliable option is to assign a sniper to track and kill the marksman.

The sight

★ It's usually the scope that converts a rifle into a sniper's weapon. The best sights can be adjusted to compensate for distance and wind speed. Modern snipers use infrared sights or night sights when shooting in the dark.

Zf41 Single German sight for Kar98k.

Reflection protection The rifle is wrapped in fabric to prevent light glinting off it.

Specialist .338 Lapua Magnum bullets are used in modern L115a3 sniper rifles.

Standard 7.62-mm bullets for a Mosin-Nagant 1891, common during World War II.

Ammunition

★ In the past, snipers used standard ammunition, but since World War II, specialist sniper ammunition that's heavier and more stable has become more common. As snipers are increasingly deployed against materiel, the ammunition has increased its calibre.

Sniper

★ The most precise marksman is not necessarily the best sniper. Equally – if not more – important are patience, good reflexes and stamina.

Laser rangefinder **Leica Vector Rangefinder.**

Distance measurement

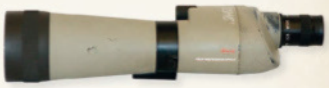
★ Despite training and many ingenious aids, earlier snipers usually had to guess how far away the target was. The introduction of the laser rangefinder was a great help, but it can also reveal the sniper's position.

Observer

★ The observer keeps an eye out for targets and bullet strikes and is alert to weather and wind conditions. In addition, the observer is responsible for the position's security and communication. In a modern sniper team, the observer can relieve a tired shooter.

A Soviet sniper pair try to blend into the landscape. January 1943.

SOVFOTO/GETTY



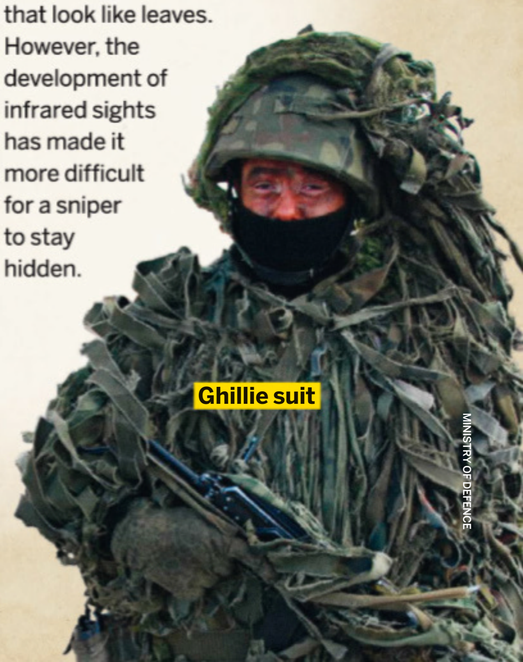
Observer's scope **Kowa TSN-822.**

Observer's telescope

★ Nowadays, observers have their own scope to assist the sniper and detect targets. It's usually more powerful than the shooter's sight and has a wider field of view. Binoculars can also be used.

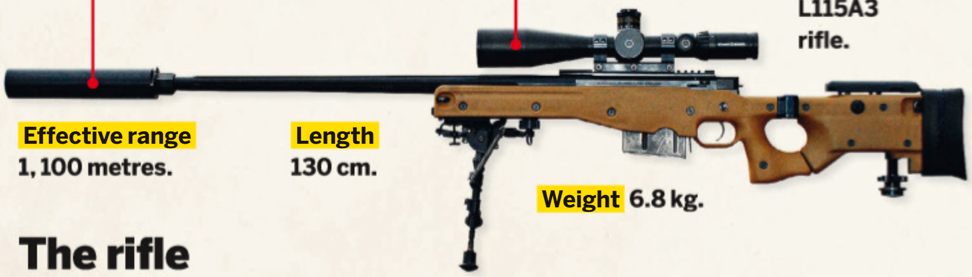
Camouflage

★ Today, almost all snipers use the British ghillie suit as camouflage. It's a full-coverage suit comprising strips of fabric that look like leaves. However, the development of infrared sights has made it more difficult for a sniper to stay hidden.



Ghillie suit

MINISTRY OF DEFENCE



Sight **Magnifies 25 times. Can be used in the dark.**

Silencer

L115A3 rifle.

Effective range **1,100 metres.**

Length **130 cm.**

Weight **6.8 kg.**

The rifle

★ During both world wars, sniper rifles were ordinary infantry rifles that had been identified at the factory as being particularly accurate. After World War II, custom-made rifles were produced. The L115A3 (above), which entered service in 1996, has an effective range of more than a kilometre, but can reach even further. In 2009, it set the record (now surpassed) for the world's longest kill shot: 2,475 metres.

training back home in Germany. Soviet schools were also busy training snipers, as many were lost in 1941, but training was cut to a minimum. The Soviets, incidentally, were the only ones to allow large numbers of women to undergo training.

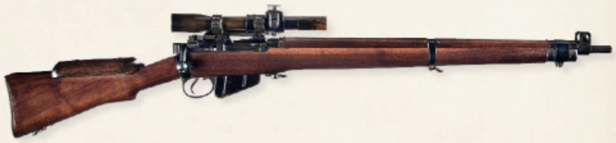
However, snipers still worked best under more static frontal conditions, so when the German blitzkrieg ground to a halt, their capabilities improved. Cities and forests proved to be ideal environments, and the Battle of Stalingrad in particular became famous for the Soviet snipers' efforts in keeping the Germans pinned down.

The training of snipers during World War II was not that different from the earlier conflict. Instead, the focus was on technological development. The Soviet Union (SVT-38 and -40), Germany (Gewehr 41 and 43) and the United States (M1C Garand) all experimented with the use of automatic rifles for sniping. The results weren't all positive, as the weapons were not as accurate at long range as the older repeating rifles. However, battlefield experience showed that snipers were often forced to fight at much shorter ranges than planned, particularly in urban areas. As a result, many prioritised a higher rate of fire over accuracy.

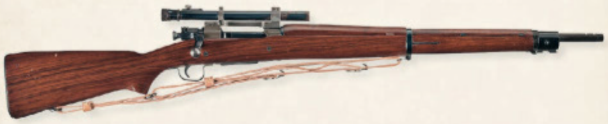
AFTER THE GERMAN blitzkrieg of 1940, the British also resumed their World War I sniper training, but it was some time before the Americans followed suit. Before the war, only the US Marines practised precision shooting, which they would later benefit from when encountering Japanese snipers

Sights were fitted to standard rifles

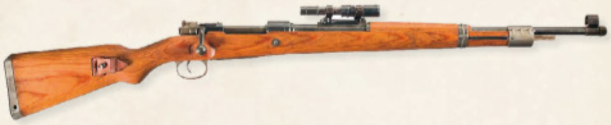
★ The telescopic sight transformed the standard World War II rifle into a sniper rifle. Here are four famous combinations.



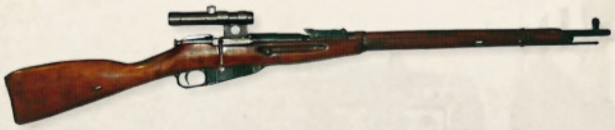
Lee Enfield No 4 MKI (T) with No 32 sight
Classic British repeating rifle equipped with wooden cheek rest and No 32 3.5x telescopic sight.



Springfield 1903A4 with M73 sight
US Infantry rifle M1903A3 with M73 or M73B1 2.2x scope. Used with great success during the invasion of Normandy.



Kar98k with ZF41 sight
German Karabiner 98k, developed from guns used in World War I, was equipped in 1941 with the short Zielfernrohr 41 1.5x telescopic sight. With this sight, the carbine became – if not a true sniper rifle – a marksman's weapon.



Mosin-Nagant model 1891/30 with PU scope
The Red Army's sniper rifle is the world's most manufactured. It went into production in 1942 and was used until the early 1970s.

in the Pacific. However, the US Army only issued sniper rifles to soldiers with good marksmanship skills. In Normandy, the Americans were easy prey for the German Eastern Front veterans, but the US soldiers slowly gained the necessary experience, while the Germans were eventually forced to deploy half-trained boys from the Hitler Youth as snipers in the hopeless final battle.

After World War II, the West turned its back on specialist snipers once again – only to be forced to recall World War II veterans when the Korean War broke out. The Soviets, who had not forgotten the value of snipers, had trained their Korean and Chinese allies.

After the Korean War, the Cold War was marked by a seemingly endless series of guerrilla wars and low-intensity conflicts in which snipers played an important role. The Vietnam War was the conflict that finally made Americans aware that the sniper should be a permanent and high-priority part of the military – a fact that has not changed since the end of the Cold War. The war on terror since 2001 has largely been waged by snipers.

THE EVENTUAL ACCEPTANCE of the sniper has led to a number of technical achievements. First, specialised sniper rifles have been produced instead of just standard rifles with telescopic sights. The Russians have continued to develop automatic weapons as sniper rifles, which produced the Dragunov rifle (SVD). In the West, snipers still prefer the reliable repeater system, although infantrymen use automatic weapons as a form of sniper rifle.

“IN THE RED ARMY, THERE WAS ALMOST A CULT AROUND THE CONCEPT OF A SNIPER”

The custom-built sniper rifles have in many cases become larger, improving the theoretical maximum range of the shooter from around one kilometre to two. More powerful scopes have made it possible to exploit this range. During World War II, four times magnification was the norm, whereas today nearly ten times magnification is standard.

IN ADDITION, SEVERAL new technological tools have been added, such as infrared sights, laser rangefinders and GPS. However, technological developments can also make life difficult for the sniper. It's difficult to hide from an enemy with infrared equipment, and even if successful, computers will soon be able to calculate the shooter's position using the sound waves of the shot or laser scans of the bullet's trajectory.

It's why many military experts argue that the sniper may soon have played out his role on the battlefield. Something the military has wrongly predicted many times over the past 200 years.

Rasmus Kjærbye Petersen is a history writer.

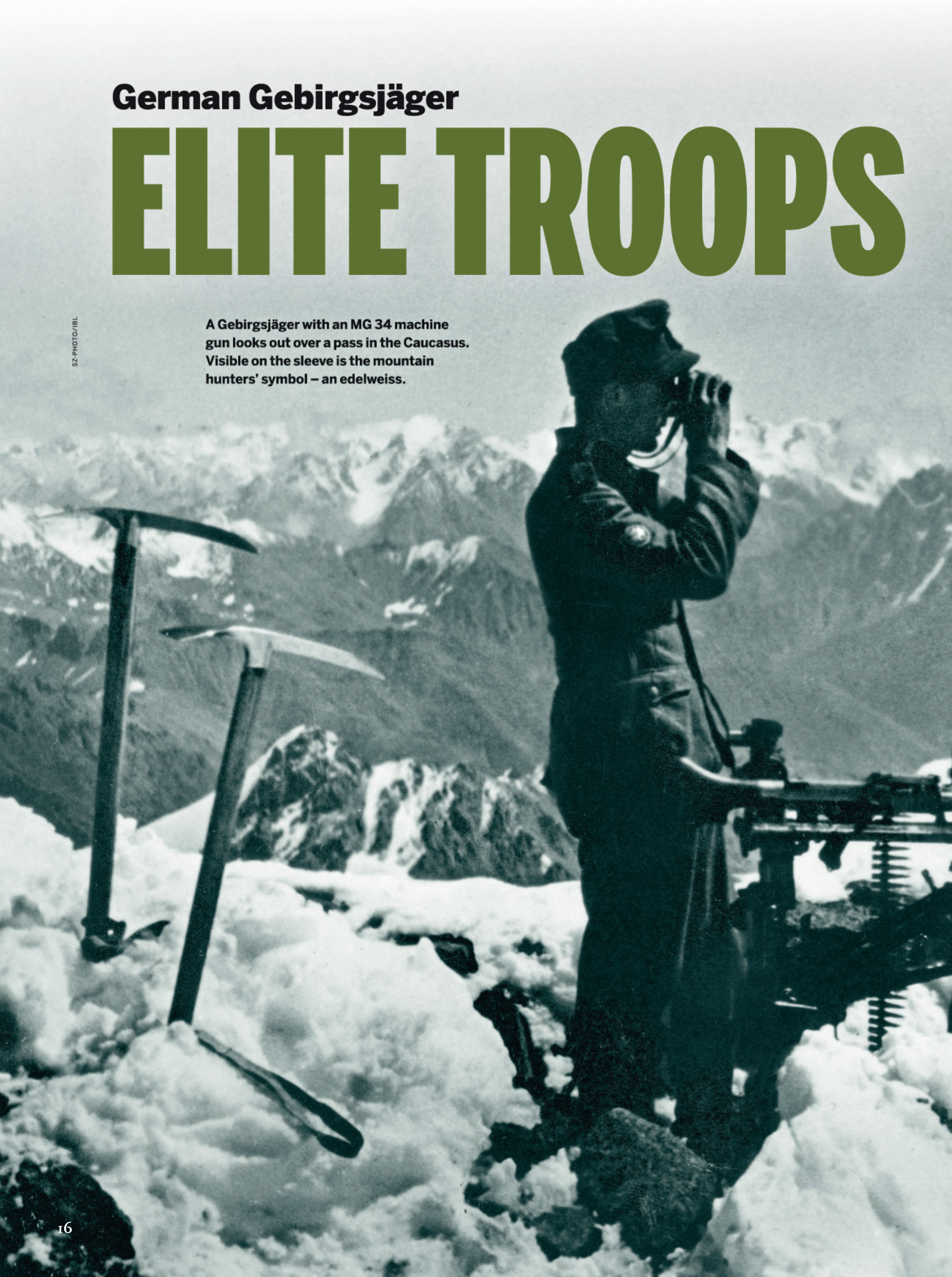
Kliment Voroshilov organised Soviet sniper training.

Soviet soldiers advance through the ruins of Stalingrad. Snipers on both sides suffered many casualties in this brutal stalemate.

SOVFOTO/GETTY

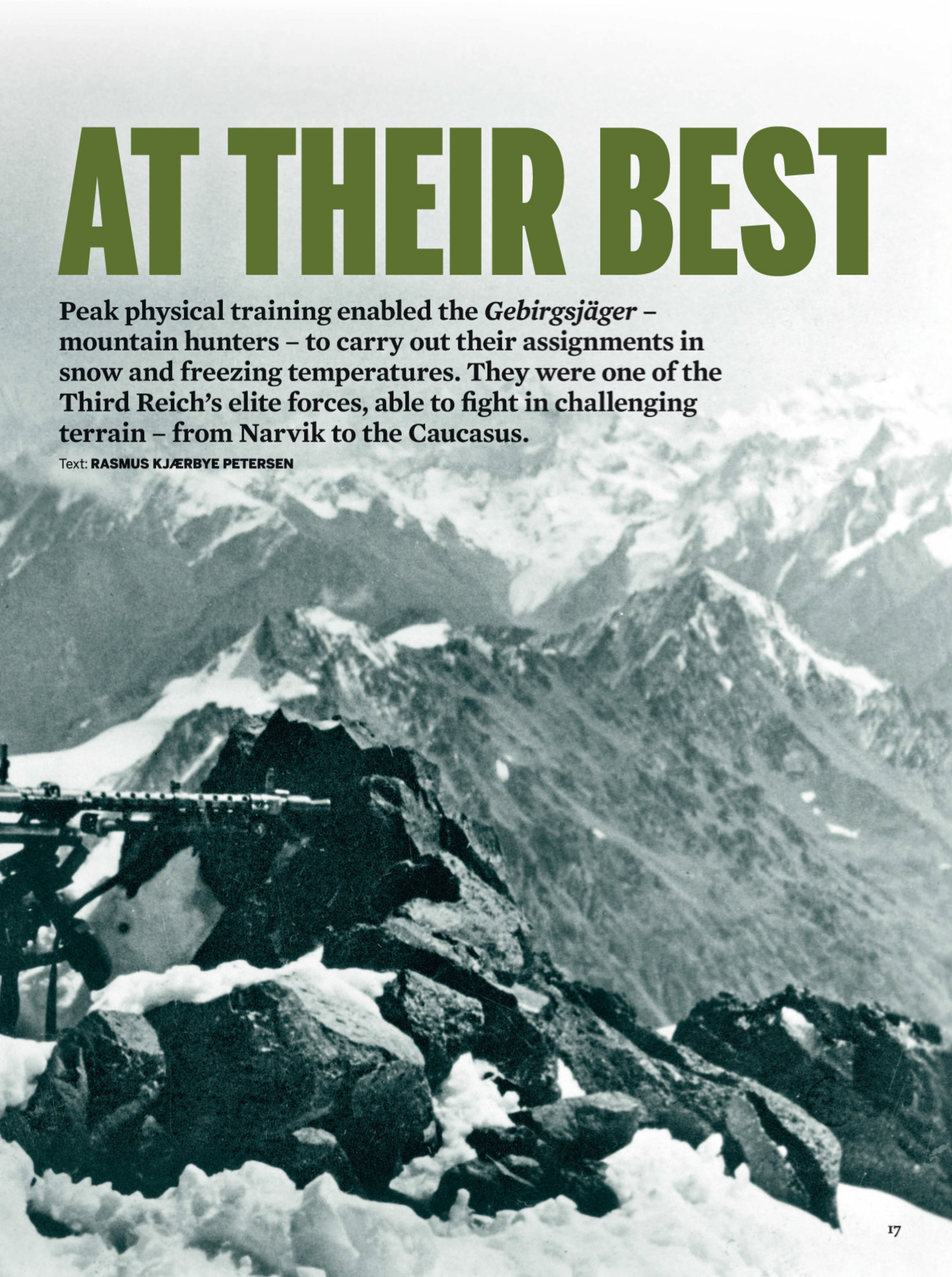
German Gebirgsjäger

ELITE TROOPS



A Gebirgsjäger with an MG 34 machine gun looks out over a pass in the Caucasus. Visible on the sleeve is the mountain hunters' symbol – an edelweiss.

SZ-PHOTO/IBL



AT THEIR BEST

Peak physical training enabled the *Gebirgsjäger* – mountain hunters – to carry out their assignments in snow and freezing temperatures. They were one of the Third Reich's elite forces, able to fight in challenging terrain – from Narvik to the Caucasus.

Text: **RASMUS KJÆRBYE PETERSEN**

The Austrian *Gebirgstruppe* – Mountain Troops – were the model for the German mountain hunters. Here, Austrian soldiers scale a cliff face to surprise an Italian unit on the other side. Isonzo, 1915.

SHUTTERSTOCK/IBL

In the early 1900s, the idea of soldiers who specialised in mountain combat was relatively new. Before the outbreak of World War I, only Italy (*Alpini* – Alpines – in 1872), France (*Chasseurs Alpins* – Alpine Hunters – in 1888) and Austria-Hungary (*Gebirgstruppe* – Mountain Troops – in 1906) had established special alpine units. While Germany continued to be allied with Austria-Hungary and Italy, it required no forces in the Alpine region. But in May 1915, Italy left the Alliance, and a few days later declared war on Austria-Hungary. It took both countries by surprise. Austria-Hungary's Gebirgstruppe had been sent to Galicia (in modern-day Poland and Ukraine) to reinforce the faltering Soviet front. This left no forces in Tyrol except the local *Standschützen* (rifle companies) militia and a few undermanned forts to hold off the well-trained Alpini.

THE GERMANS WERE better placed to mobilise forces to the new front quickly. They created a new corps, the *Alpenkorps* – Alpine Corps – consisting of Western Front veterans commanded by Generalleutnant von Dellmensingen. Neither the general nor his men had been trained for the task, but a large number came from Bavaria, where many had experienced mountain life as civilians.

The Alpenkorps quickly transferred to the front in the Dolomites in Tyrol. Its mission was to help the Austrians patrol the border and defend their territory against incursion. However, the Germans were not allowed to cross the border, because Italy and Germany were not officially at war.

LUCKILY FOR THE DEFENCE forces, Italian military command didn't understand how to exploit the opponent's temporary weakness and go on the offensive. The Alpenkorps thus had time to learn. The Austrian Standschützen, who were masters of the mountains, shared their knowledge freely with their German allies. In return, the German veterans gave the militia a crash course in modern warfare. In this way, their joint action enabled the allies to stabilise the front before the Italians attacked.

In October 1915, Austria-Hungary reinforced the defence of Tyrol with its own troops, and so the Alpenkorps was pulled out of the politically sensitive situation.

It was a sad farewell. The efforts in Tyrol had created a strong bond between German and Austrian soldiers. During a ceremony at the Hotel Elefant in Bressanone (modern-day Italy), the Austrian Archduke Eugen presented the Alpenkorps' representatives with an edelweiss badge – the same alpine flower that adorned the Austrian Gebirgstruppe's collars. It marked the empire's official thanks for the Germans' help.

Twenty thousand badges were distributed – one to each of the Alpenkorps' soldiers. In this way, German and Austrian mountain forces established a bond that would continue into the next world war.

Mountain Brigade

1935-39

The Treaty of Versailles forbade Germany from creating special mountain units, but the Reichswehr didn't want to forget the lessons learned from the Alpenkorps and decided that all ordinary infantry divisions should include a battalion equipped for service in the mountains. In 1935, Hitler broke the Treaty of Versailles and increased the Wehrmacht's pace of development. All existing mountain brigades consolidated into the *Gebirgs* – Mountain – Brigade led by Colonel Ludwig Kübler. A few months later, Kübler was tasked with expanding the brigade with two new regiments and an artillery unit.

Recruits came mainly from Bavaria in the same way they had in the Alpenkorps. Germany also had a regional police force trained for patrolling the Alps – this also became part of the Gebirgs Brigade.

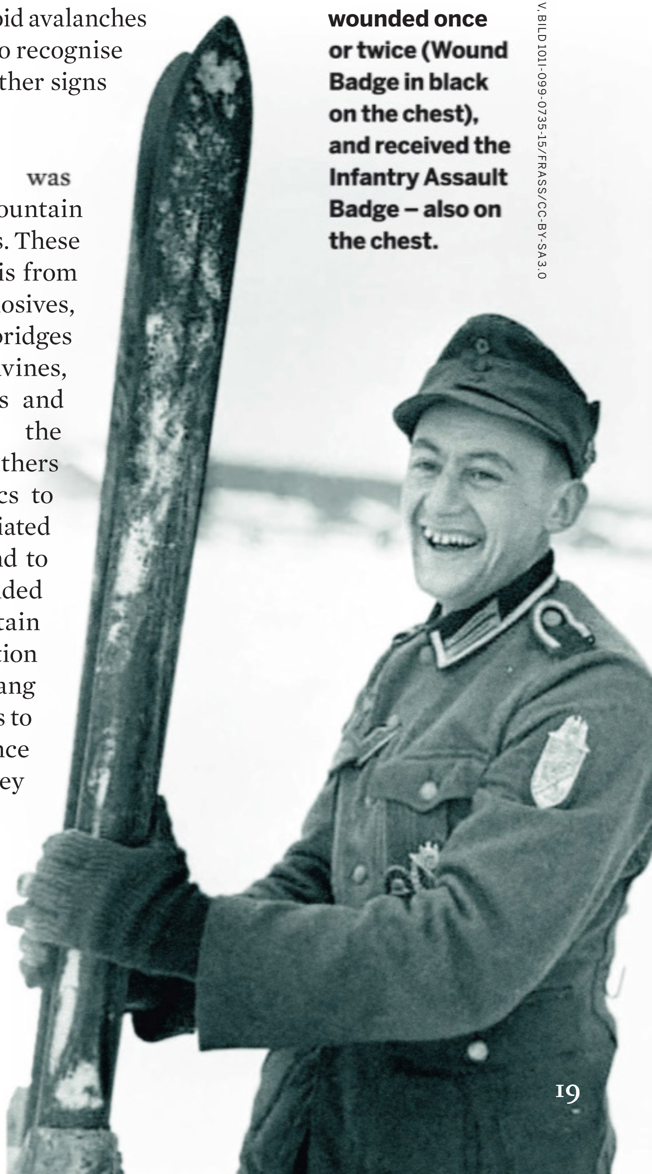
THE TRADITIONS of the Alpenkorps and the old historical ties between Bavaria and Austria meant there was a strong Austrian influence in the newly formed brigade, despite the extremely chilly relationship between Germany and Austria at this time. Not only did the brigade continue to use the edelweiss symbol, but its uniform was also more or less a copy of the Austrians' (see page 23). In 1938, Hitler ended the conflict with his old homeland by annexing it into the new Third Reich, and the integration of German and Austrian mountain forces proved surprisingly simple. One month after Anschluss, the Gebirgs Brigade was expanded and renamed the 1st Gebirgsdivision. On the same day, the 2nd and 3rd Gebirgsdivisions came into being, staffed almost exclusively with former Austrian soldiers. These *Gebirgsjäger* – mountain hunter – forces became almost dominated by Austrians.

Kübler introduced a punishing training regime incorporating both Italian and Swiss techniques alongside his own ideas. As well as regular infantry training – including exercise, weapons training and field exercises, which mountain hunters were expected to tackle without difficulty – they also learned specialist skills to help them deal with even the most mundane tasks in an alpine environment.

> "THE GEBIRGSJÄGER FORCES BECAME ALMOST DOMINATED BY AUSTRIANS"

One such adaptation would be building up a fortification of rock to provide protection rather than trying to dig a trench, which was impossible due to the alpine bedrock being just below the ground. This rock protected against both bullets and icy wind.

The Gebirgsjäger also had to learn how to safely traverse the terrain in single file, moving in a zigzag fashion while spacing themselves out to minimise the number of soldiers who would be carried away in an avalanche. Ideally, however, they would avoid avalanches altogether by learning to recognise weather patterns and other signs of heightened risk.



This mountain hunter's insignia reveals that he fought in Norway (Narvik Shield on the sleeve), was wounded once or twice (Wound Badge in black on the chest), and received the Infantry Assault Badge – also on the chest.

BUNDESARCHIV, BILD 101I-099-0735-15/FRASS/CC-BY-SA 3.0

EXTRA TRAINING was provided for some mountain hunters, such as sappers. These would clear away debris from landslides using explosives, build suspension bridges or cable cars over ravines, and construct bunkers and fortifications using the materials available. Others were trained as medics to deal with injuries associated with the mountains and to help transport wounded up and down mountain slopes. Communication specialists learned to hang antennas in the treetops to avoid signal interference due to the climate – they were also trained to use signal flags with relay stations if all else failed. Last but not least came the practical ►

The Narvik Shield was awarded to those who had fought at Narvik. The anchor, aircraft propeller and edelweiss refer to the three military branches that were involved in the operation.

mountaineering training. Gebirgsjäger had to learn how to ascend and descend mountain faces using axes, carabiner hooks and ropes. They also had to be able to ski, travel on snowshoes and survive a night on a mountain peak in temperatures well below freezing.

Specialist equipment was required (see page 23). Mountain hunters needed better winter clothes than most other German soldiers – essential for coping with the extreme environment. Their anoraks, windcheaters and snow-white camouflage would later spark envy among their less fortunate comrades on the Eastern Front.

THE GEBIRGSDIVISIONS also had access to pack animals (ponies, mules and even St Bernard dogs), which were usually better suited to the alpine landscape than trucks. During the war, the mountain hunters also learned to make use of whatever was available locally: reindeer in Lapland, dog sledges on the Murmansk front and camels in the Caucasus.

The most crucial pack animal, however, was the Gebirgsjäger himself. He was considered light infantry, but that mainly referred to the division's lack of heavy equipment in the form of artillery, armour and – not least – trucks. Without these, the elite soldier and his faithful mule had to carry every single kilogram they needed through the mountains. Marching songs such as the popular Austrian *Kaiserjäger Marsch (The Kaiser March)* became essential travelling companions.

Propaganda victory in Narvik 1940

One of the first and most significant challenges for the Gebirgsjäger came with the conquest of Norway in April-May 1940. Ten destroyers accompanied by civilian cargo ships transported soldiers from the 2nd and 3rd Gebirgsdivisions across the North Sea, a first-time experience for many of the Austrians. Without any specialised training in sea landing operations, they were put ashore in several places along the Norwegian coast, but fortunately for them, Norwegian resistance was initially limited.

The target was Narvik – a vital shipping port for Swedish iron ore. On 9th April, after a short battle with two Norwegian coastguard ships, a regiment from the 3rd Division, consisting of 1,900 men under the leadership of the division commander General Dietl, was put ashore.

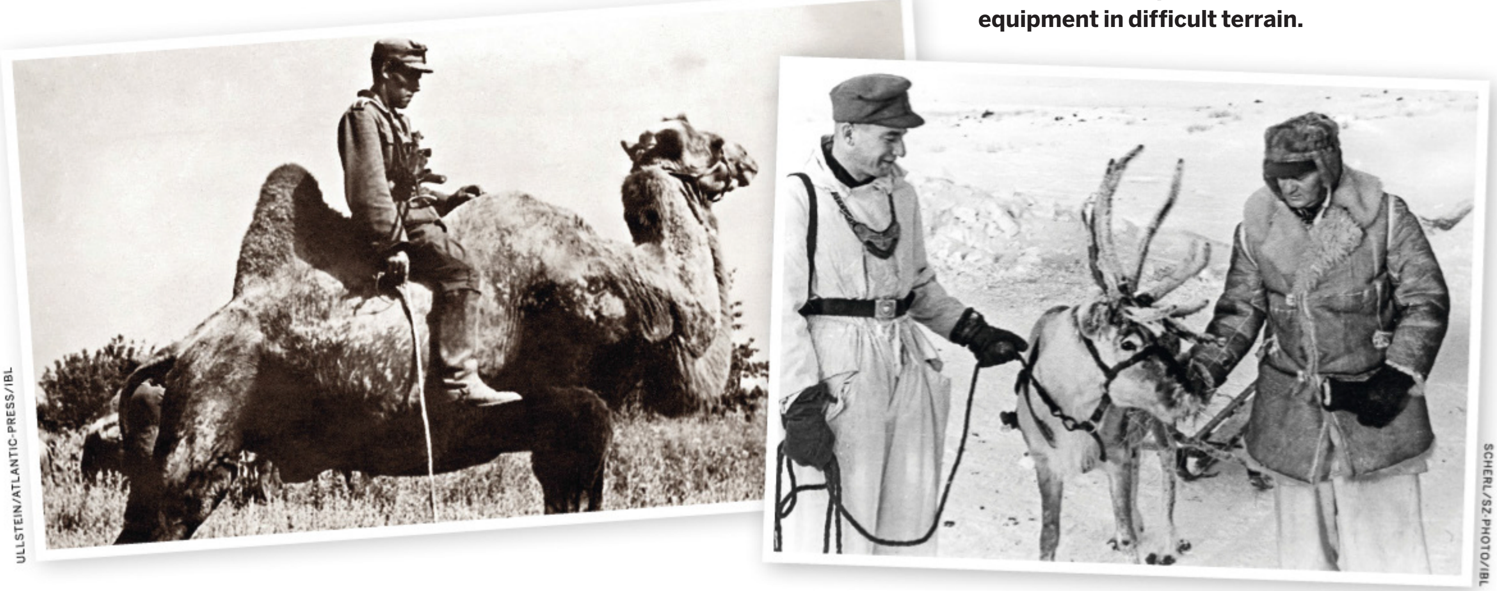
The Norwegian garrison in Narvik quickly surrendered and the mountain hunters secured the city without loss.

Victory was short-lived. The following day and again on 13th April, British warships sailed into

ULLSTEIN/IBL

Soldiers from the 3rd Gebirgsdivision make their way through fjords around Narvik in dinghies. May 1940.

Camels in the Caucasus and reindeer in Lapland. The Gebirgsjägers learned to make use of local animals to transport themselves and their equipment in difficult terrain.



ULLSTEIN/ATLANTIC-PRESS/IBL

SCHERL/SZ-PHOTO/IBL

the fjord, sinking all ten destroyers along with a ship carrying both ammunition and artillery. The division was left isolated and could only receive supplies from the air.

Dietl, determined to hold the Gebirgsjägers' positions, awaited relief from German forces that had invaded southern Norway. A bridgehead at Trondheim was secured and other regiments from the 2nd and 3rd Divisions soon began to march north. But their advance was delayed by the growing Norwegian resistance and the difficult-to-navigate mountains of Northern Norway.

In Narvik, Dietl organised his defence. The 2,600 German sailors who had made it to land were equipped with Norwegian weapons and tasked with holding the city. The mountain hunters established extended battle lines in the surrounding mountains and their success included holding off a smaller force of British naval infantry that came ashore north of the city.

ON 24TH APRIL, the Norwegian 6th Division launched an attack against one of the Germans' advanced positions at Lapphaugen. One battalion attacked the mountain hunters' positions from the front while another fought through a mountain blizzard to engage them from Narvik. During a desperate counter-attack against the encircling forces, 165 Gebirgsjägers used Norwegian prisoners – many of them civilians – as human shields and thus managed to defeat the exhausted Norwegians. Soon, however, the Germans felt compelled to give up Lapphaugen, as it was seen as too vulnerable.

Another reason for Dietl's decision to start pulling back his lines around Narvik was that the Allied forces were building in earnest. On 28th April, the French Foreign Legion, Chasseurs Alpins and *Samodzielna Brygada Strzelców Podhalańskich* – Polish Independent Highland Brigade – landed on either side of the city. The Allies had decided to try to keep Northern Norway as a permanent front, which meant they needed to recapture Narvik.

> **"THESE ANIMALS WERE USUALLY BETTER SUITED TO THE ALPINE LANDSCAPE THAN TRUCKS"**

THE GERMANS ALSO received reinforcements. About 1,000 mountain hunters volunteered to take part in an air landing – something completely new to them – to aid their besieged comrades. But it didn't help much against the strength of nearly 25,000 assembled Norwegians, Britons, French and Poles, ready for battle by mid-May.

Tough resistance from the Luftwaffe meant the Gebirgsjägers did not immediately have to surrender to the superior force, but the situation became increasingly critical. After yet another Allied landing operation on 28th May, Dietl was forced to give up Narvik and pull his remaining troops up into the mountains ahead of what would become the final battle.

However, the overall strategic situation had already changed. The Allied collapse in northern France forced it to withdraw certain forces and abandon the defence of Norway. Narvik was captured solely to destroy the port facilities. After that, the Allies could retreat, having completed their revised mission. On 8th June, Dietl's forces moved into Narvik again without encountering further resistance, and finally, on 13th June, relief forces arrived from the south.

The Nazi propaganda machine presented it all as a grand victory, but the fact is that the mountain hunters had failed in their attempt to secure the ►

BUNDESARCHIV

General Eduard Dietl led the regiment from the 3rd Gebirgsdivision that fought inNarvik.

► port. That they had survived was their only genuine victory. Psychologically, however, Narvik proved critical, not least due to the integration of Austrians as an equal part into the new Greater German population.

The storming of Greece 1941

In April-May 1941, Hitler was forced to assist Mussolini in his failed invasion of Greece. Despite his focus being the imminent attack on the Soviet Union, the Führer couldn't risk the British opening a new front against him in the Balkans at such a crucial moment.

The 1st Division was teamed up with the newly created 4th Gebirgsdivision, advancing through Yugoslavia without encountering any real resistance. It was not as simple for the 5th and 6th Gebirgsdivisions, who had been ordered to march over the high Rhodope mountain range in Bulgaria and break through the heavily fortified Greek Metaxas Line.

ON 6TH APRIL, the attack started well, helped by thick fog that hid the German advance. However, they were soon discovered and the Greeks opened fire. The mountain hunters had – with great difficulty – managed to drag their artillery over the mountains, but neither this nor the many Stuka aerial attacks were enough to take out the Greek bunkers. The defenders were even cold-blooded enough to order their own artillery to fire on their positions when the Gebirgsjägers attempted to capture the bunkers in close combat.

The battle cost the Germans dear, but after three days, Major General Julius Ringel's forces managed to break through the line in several places. At the same time, armoured forces from Yugoslavia arrived at Thessaloniki and the Greek position in the north became untenable. The Germans continued to advance and after only 20 days had taken control of the entire Greek mainland.

THE BRITISH AND GREEK forces retreated to Crete, from where they continued to threaten the southern border and convoy routes of the Axis powers in the Mediterranean. Hitler ordered a quick capture of the island and on 20th May, Operation Mercury began. It focused on *Fallschirmjäger* – paratroopers – landing at number of strategic points, but resulted in many casualties. The 5th Division was tasked with saving the situation.

The help was not appreciated. The paratroopers, determined to secure at least one victory before the mountain hunters arrived, impeded them as much ►

Equipped for mountain battle

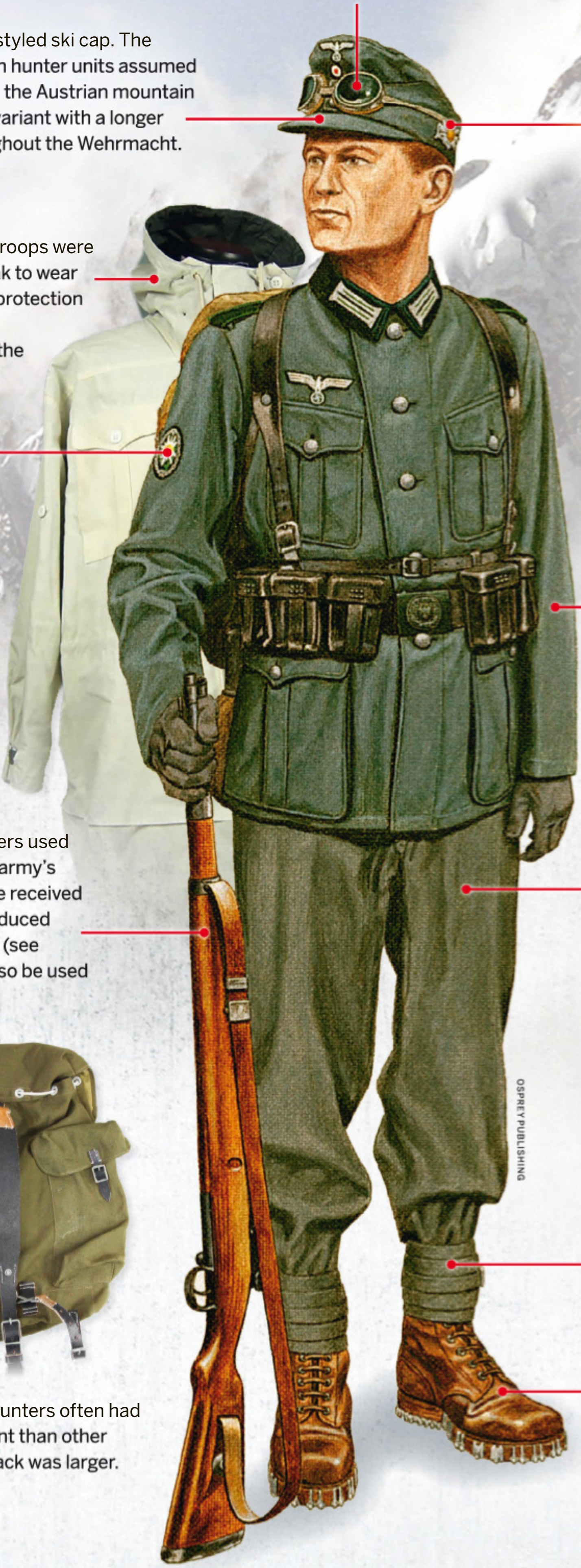
Gebirgsjägers were equipped for high-altitude missions during harsh weather. Here's a mountain hunter from 1940 with some of his most important tools.

Climbing rope Kernmantle rope with an inner core of natural fibre (later also nylon), covered by a braided sleeve.

Axe There were two types of mountain hunter axes: one with a short shaft for use on steep rock walls and another with a long shaft that also served as a walking pole.

Snowshoes There were many types of snowshoes – some round, others more oval – designed for different environments and snow types. They shared a similar design.

Skis Detachable footplate for mountain boots.



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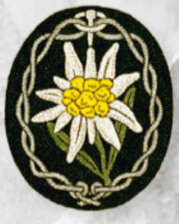
Snow goggles Protected against snow blindness.

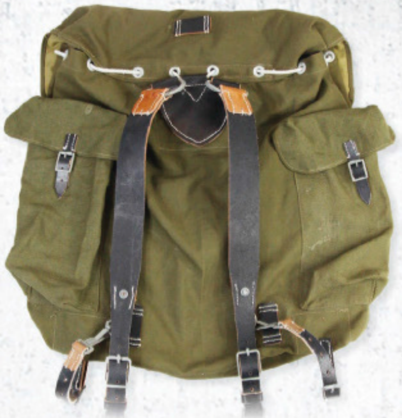
Bergmütze Austrian-styled ski cap. The newly created mountain hunter units assumed the cap, partly linked to the Austrian mountain hunters. From 1943, a variant with a longer peak was issued throughout the Wehrmacht.

Anorak All mountain troops were equipped with an anorak to wear over the field jacket as protection against the cold. It was eventually replaced by the army's standard winter uniform, which was produced from 1942.



Edelweiss A variant of the insignia was worn on the sleeve.

Rifle Most Gebirgsjägers used a Kar 98k, the German army's standard rifle, but some received a shortened Czech-produced variant, the Gew 33/40 (see picture), which could also be used as a walking pole.



Backpack Mountain hunters often had to carry more equipment than other soldiers, so their rucksack was larger.

Edelweiss This alpine flower became the symbol of the Austrian Gebirgstruppe in 1907, and from 1915 it was also adopted by the German Alpenkorps. Mountain forces still use the symbol today. A variant of the emblem can be seen on the uniform cap.

Field jacket Gebirgsjägers used the same *Feldbluse* – army field tunic – Model 1936 as other soldiers in the army. However, it changed considerably over time.

Berghosen Special trousers with reinforced fabric in exposed areas. The legs were made narrower so they could be tucked inside the boots. In the cold and snow, mountain hunters wore a special winter suit over the top.

Puttees Prevented dirt and water from entering the boots. They were usually short, but could vary. SS mountain hunters used simpler gaiters instead.

Custom-made boots Iron hobnails under the soles provided a good grip. As well as being practical, the boots were also associated with the Austrian troops.

as possible. General Ringel's Ju 52 transport aircraft were struck by mysterious 'technical problems' on the runway. Gebirgsjägers already seated in their transport planes were then unceremoniously unloaded in favour of more paratroopers, who flew into Maleme airport under heavy shelling.

BY 22ND MAY, Maleme was in German hands and Ringel's difficulties disappeared. The lack of aircraft meant that several regiments from the 5th Division had to be sailed to the island in a small flotilla of Italian torpedo boats, Greek fishing vessels and rafts. The Royal Navy successfully intercepted the fleet, but an Italian torpedo boat's resolute action prevented a massacre. Nevertheless, around 300 mountain hunters drowned. Only a small number managed to reach land in Crete, soaked through and lacking weapons.

Once the Gebirgsjägers returned to solid ground, they were in their element. Ringel took over command in Crete and immediately deployed one of the two battalions he had brought over in the first wave of transport aircraft to the Allies' new line of defence at Platanias. There he attempted to contact one of the encircled groups of paratroopers in the valley around Agia.

THE VILLAGE WAS HELD by the New Zealand Maori Battalion, which was able – with powerful artillery support – to prevent the Germans from using the bridge as a crossing point. The mountain hunters weren't daunted, however, crossing the mountains to bypass the bridge, after which the New Zealanders were forced to retreat to Galatas.

Mountain hunters in camouflage uniform with MG 34s on their way to relieving a machine-gun group in an advanced position. Caucasus, 1943.

SZ-PHOTO/IBL

Ringel chose to take a very conservative and methodical approach, perhaps as a reaction to the rushed air landings. He made sure to secure each captured position and then he brought in reinforcements before he took the next step. Thanks to the Luftwaffe's protective umbrella, the rest of his division and all new equipment could now be transported in safely, so there was no need to take any unnecessary risks.

By inexorably forcing the enemy out of Galatas, Ringel finally reached the paratroopers who'd been trapped outside Chania. The Allies could no longer save the situation in Crete and an evacuation was started. Around 18,000 men managed to get to Egypt, while 12,000 others ended up in German captivity.

"SOVIETS DEFENDED THE CAUCASUS FIERCELY. THIS WAS A REAL MOUNTAIN WAR"

Crete was a pyrrhic victory for the paratroopers, but the efforts of the Gebirgsjägers were a textbook example of a well-planned and skilful operation. Even the paratroopers' commander, General Kurt Student, praised them for their bravery.

Caucasus climax 1942

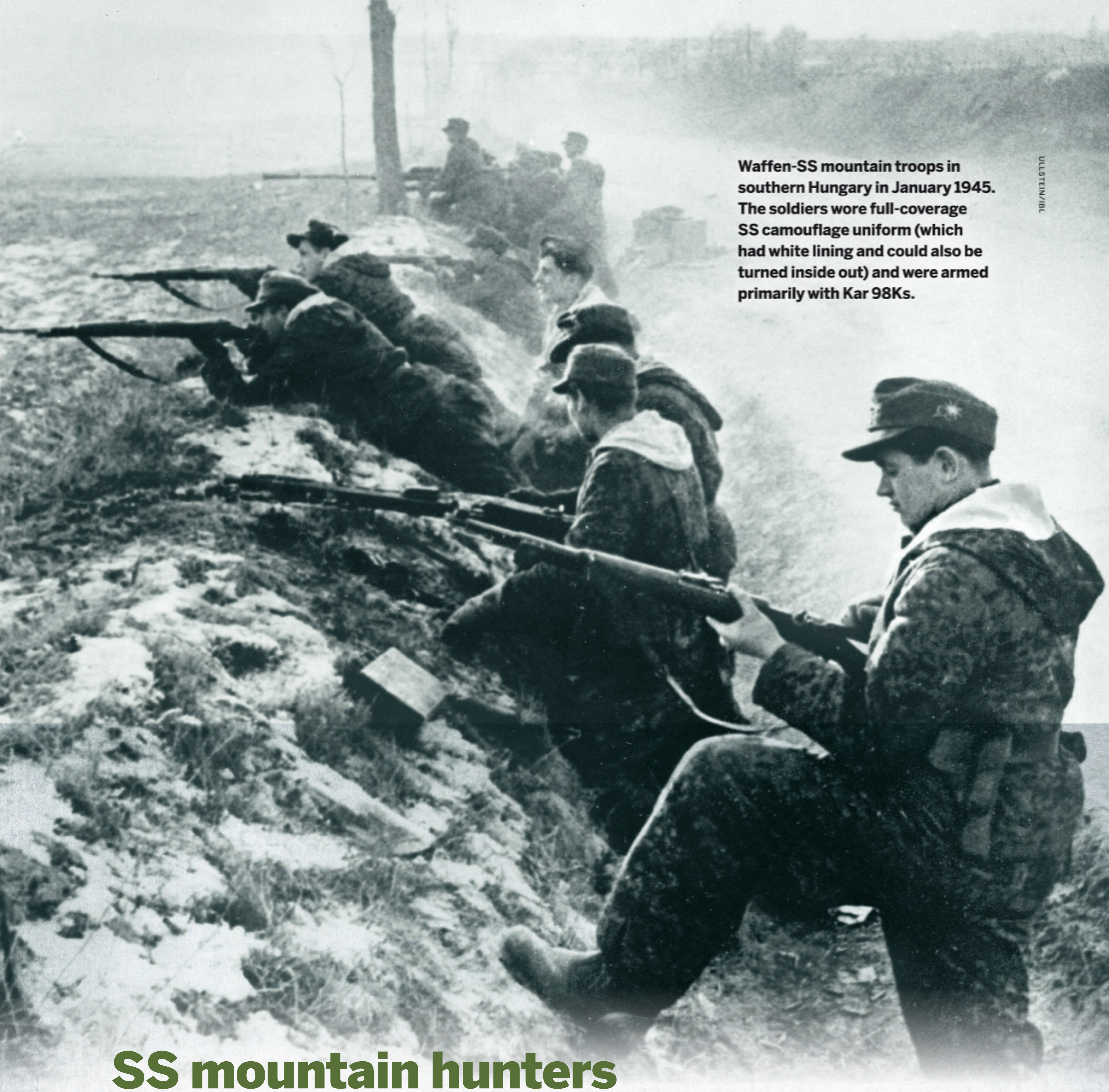
In July 1942, Hitler set new targets for *Heeresgruppe Süd* – Army Group South – and split it into two army groups, A and B, which would simultaneously capture Stalingrad and the Caucasian oil fields. The latter operation was code-named Edelweiss, a clear indication it was a task for the mountain hunters.

The high Caucasus mountain range lay between XXXXIX Mountain Corps, comprising the 1st and 4th Gebirgsdivisions, and its target. This would be the Gebirgsjägers' biggest challenge. The Caucasus were not only the highest mountains in which German mountain hunters had operated but there were also Soviet troops who defended them fiercely, despite the altitude. This was a real mountain war.

THE GERMAN ARMY reached the foot of the Caucasus in Karachay-Cherkessia and began to climb the mountain range on 17th August. Local ethnic groups, whose nationalist ambitions had been brutally suppressed by the Soviet Union, showed great sympathy towards the Germans. For once, the mountain hunters experienced how it was to be welcomed as liberators.

For Hubert Lanz, commanding the 1st Division, the conquest of the Caucasus was as much a symbolic as a military victory. Now the Third Reich would reach Europe's eastern boundary. Therefore, he planned a symbolic act: to climb Europe's highest peak, Elbrus.

On 9th August, Lanz assigned this task to Captain Heinz Groth and his force of specialised mountaineers. Groth and his 29 men started the ascent on 18th August. But before they could focus



Waffen-SS mountain troops in southern Hungary in January 1945. The soldiers wore full-coverage SS camouflage uniform (which had white lining and could also be turned inside out) and were armed primarily with Kar 98Ks.

ULLSTEIN/IBL

SS mountain hunters fought their own battles

★ Despite a rapid victory in the Balkans, Germany had a lasting problem with mountain-based guerrilla soldiers in Greece and Yugoslavia. Combating partisans was a task for the SS, but SS chief Heinrich Himmler saw this as an excellent opportunity to set up his own mountain hunter divisions. The first of these were staffed with Germans, but as the war became increasingly desperate, all volunteers were welcomed, regardless of origin. Foreign divisions used the opportunity to settle local disputes with neighbouring people, and their bloody behaviour became notorious. Discipline was not good in these divisions, so they were rarely put up against regular troops.

The 13th Waffen Mountain Division of the SS Handschar comprised mainly Croatian and Bosnian Muslims, who considered the fight against the partisans as a struggle against their former Serbian oppressors. Himmler allowed the division to have their own imams and perform Friday Prayer, and the fez was permitted headgear.

The name *Handschar* referred to a type of knife or scimitar, which also adorned the collar on their uniforms.

Shells rain down on soldiers of the 5th Gebirgsdivision during the fierce fighting on the Metaxas Line in north-eastern Greece, April 1941.

SEM/UIG/GETTY

on Elbrus, they first had to capture a small Soviet position at an altitude of 4,200 metres.

The climb was too steep for pack animals, so the Gebirgsjägers could only bring essential survival equipment with them, which meant they didn't carry any heavy weapons with which they could fight the enemy. Instead, Groth decided to try bluffing the Soviets. Under the pretence of parley, he approached the Soviet cabin bearing a white flag, knocked on the door and announced that he was planning a pincer attack against them. The surprised soldiers chose to retreat and left the lodge to the mountain hunters.

ON 21ST AUGUST, despite facing poor weather, the Gebirgsjägers scaled Elbrus's peak. They planted the Third Reich's war flag alongside divisional flags of the 1st and 4th Divisions in the harsh wind, but it proved impossible to photograph or film the event. They had to descend quickly. An extremely proud Lanz praised his soldiers and officially asked for permission to rename Elbrus to Adolf-Hitler-Spitze.

Hitler, however, was not impressed. On the contrary, according to Albert Speer's memoirs, he was furious with "those crazy mountain climbers" who "belong before a court martial". He wasn't interested in any symbolic victories. For him, the prize lay further ahead: the oil fields. The Gebirgsjägers' mission was to clear the way for the panzer troops, not waste time on some fool's errand.

"THE CAUCASUS BECAME THE HIGHLIGHT OF THE THIRD REICH, THE FURTHEST HITLER'S ARMY REACHED"

FOR GOEBBELS'S Ministry of Public Enlightenment and Propaganda, however, the climb was worth its weight in gold – but only if there were pictures to prove it had happened. Some men from Groth's company were ordered to repeat the ascent as soon as the weather improved; only then did they discover that poor visibility had led them to mistakenly climb the lower of Elbrus's two peaks. That error was now corrected.

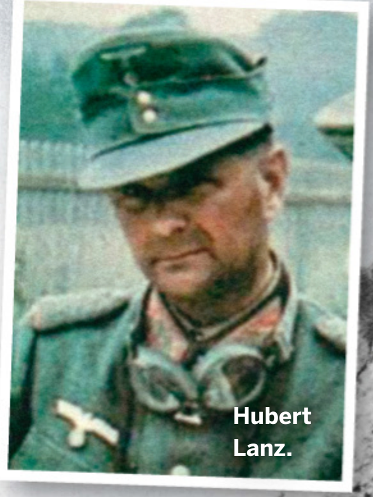
This time, pictures were taken, but they weren't good enough quality. A third expedition was duly sent off in early September, along with a professional

Gebirgsjägers were guilty of war crimes

★ After the war – as with other parts of the German army – Gebirgsjägers did all they could to absolve themselves from any war crimes, pinning the blame on SS mountain hunters instead. On closer examination, however, this wasn't the case. The Gebirgsdivisions were actively involved in Nazi crimes from the opening exchanges of the war. Here are some examples:

- During the march in Poland, the mountain hunters shot all civilians they captured and any they suspected were snipers.
- In Narvik, Norwegian prisoners were used as human shields.
- During the occupation of Lviv in 1941, the local Ukrainian population was incited against the Jews.
- In Greece and in Yugoslavia (later also Italy), mountain hunters executed civilians as punishment for partisan attacks against German forces.
- In September 1943, over 5,000 Italian soldiers who surrendered on the island of Kefalonia were massacred.

Hubert Lanz was convicted of several of these crimes after the war. He led the 1st Gebirgsdivision in Ukraine in 1941 and allowed the inhabitants of Lviv to carry out attacks on Jews. In September 1943, he took part in the fight against Italian troops on the Greek islands, where he allowed the massacre. Lanz was sentenced to 12 years' imprisonment during the 1947 Nuremberg Trials.



Hubert Lanz.

photographer. The propaganda effect had finally been achieved.

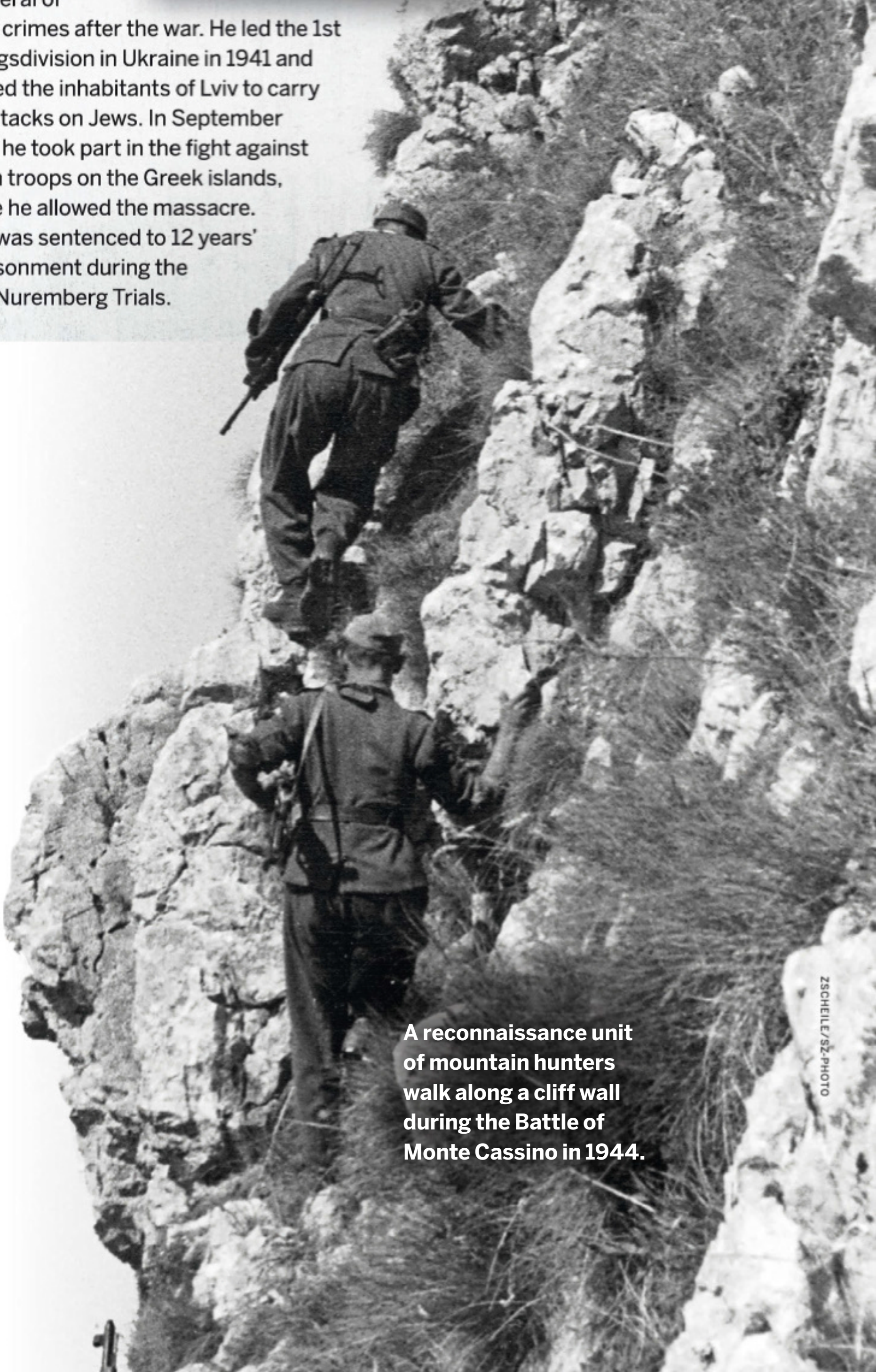
The Gebirgsjägers had succeeded in capturing the most important mountain passes, but then had the task of defending them against Soviet counter-attacks. With winter coming, the elements became their toughest adversary. It would be spring before any advance could continue.

There would be no more offensives, however. The 6th Army's encirclement in Stalingrad meant that Army Group A was in imminent danger of being cut off north of the Caucasus. A quick and total evacuation was initiated on 31st December.

The Caucasus became the highlight of the Third Reich, the furthest Hitler's army ever reached. However, the mountain hunters failed to overcome this final challenge before the strategic situation put an end to the attempt. The Swastika flag remained on Elbrus until 17th February 1943, when a group of Soviet mountaineers took it down.

Rasmus Kjærbye Petersen is a military history writer.

Further reading: Gebirgsjäger (2015) by Ray Merriam ★ **The Mountain Troops of the Waffen SS 1941–1945** (2004) by Roland Kaltenegger.



A reconnaissance unit of mountain hunters walk along a cliff wall during the Battle of Monte Cassino in 1944.

ZSCHEILE/SZ-PHOTO

US Airborne

LIVING HIGH ON A LEGEND

US paratroopers’ efforts during World War II are famous, thanks to TV shows and movies. In reality, however, their operations were fiercely debated and rarely went as planned.

Text: **BO SUNNEFELDT**

“Inboard personnel stand up! Hook up!” The commander’s order cut through the hum of the C-47 transport plane’s engines and acted like a lash on the dozing paratroopers. After a long night flight from southern England over neutral Spain, they had almost reached their destination: French Algeria.

After hours of inactivity, the men were relieved to be moving again. Clambering to their feet, they hooked their release lines on to the wire suspended from the fuselage’s roof. Anxiety gnawed at their nerves. The parachute drop was risky enough, but how would the French forces react to them?

“Check equipment!” The activity was frantic in the narrow cabin. In the faint morning light, they could glimpse the waves of the Mediterranean and a dark strip of land further ahead: Africa. Red light: the moment of truth was near.

“Stand in the door!” The officers at the front of the line felt the wind whipping their faces through the open door. Below, they could glimpse the small waves of sand dunes and a jumble of dilapidated houses, and beyond them, the Atlas Mountains tall on the horizon.

“Ready?” The enthusiastic answer to the commander’s question momentarily drowned out the engine noise. Green light: *“Go!”*

Paradoxically, for the uninitiated, this jump into unknown territory was strangely invigorating, a release of built-up tension, but the land below was more unknown than they might have guessed.

THE PARATROOPERS LANDED far from the planned target zone. Poor weather and inexperienced pilots with poor navigation skills meant that out of the 37 aircraft that transported the force – an entire parachute infantry regiment – 30 never reached their primary goal of Oran’s airport. Running low on fuel, most of the aircraft landed in a dry salt lake nearby and off-loaded their troops ►

Thirteen thousand US paratroopers jumped out over Normandy on the night of 6th June, 1944, but only half of them landed where they could participate in the fighting. It was not a good result.

> **“THIS JUMP INTO UNKNOWN TERRITORY WAS STRANGELY INVIGORATING”**

US ARMY AIR FORCE/THE LIFE PICTURE COLLECTION/GETTY

on the ground. The mission was part of Operation Torch: the Allied invasion of North Africa.

It was the first airborne assault of its type to be carried out by the US in World War II and came close to being an operational and tactical failure, but on 8th November, it was a debut performance that was still largely welcomed by Algeria's French citizens.

THE US AIRBORNE forces made the longest military air-transport flight to date to reach the operation's site in North Africa. However, the journey to get them into the war itself had been far longer and much more demanding. The first parachute jump from an aircraft happened in the US in 1911, but the US had shown little interest in the idea of parachute regiments. A proposal to drop paratroopers behind the German front line in World War I was dismissed as pure fantasy. However, one of those who had promoted the idea, the then Major Lewis Bereton, would become supreme commander of the Allied Airborne Forces during World War II.

The US experimented with the idea of deploying troops by parachute during the interwar period, but no serious efforts were made to incorporate airborne capabilities into its armed forces. There were several reasons for the delay. Military decision-makers agreed on the fundamental benefit of vertical insertion into the battlefield, but sceptics doubted that such regiments would prove cost-effective and believed they would be marginalised in any coming war. They also feared that such regiments would steal qualified personnel from the regular forces. Instead, they suggested that such soldiers be deployed as non-commissioned officers, thus increasing the combat capabilities of existing regiments. They also disagreed over whether the troops should be considered as ground forces or as part of the air force. In April 1940, it was finally decided that an experimental regiment should be set up under army command. A few days later, German paratroopers dropped over Denmark and Norway.

Nazi Germany's push west the following month, which was spearheaded by airborne regiments, jolted the US out of its complacency. At the end of June, the head of the Army Infantry School at Fort Benning, in Florida, was charged with establishing an experimental regiment. By 16th August, the new unit had made its first parachute jump. Practical training was carried out alongside classroom lessons covering military methodology, tactics, organisation and equipment. In May 1941, guidelines were issued for the use of the airborne regiments that were still in training. That same month, the Germans gave a practical demonstration of how to use fully trained paratroopers in Crete.

CRETE WAS A pyrrhic victory for the Germans, however, and was bought at the cost of future

101st 'Screaming Eagle' Airborne Division insignia.

An airborne division drops equipment to a US communication post in Bastogne in Belgium, 1944.

US ARMY SIGNAL CORPS

airborne operations, but that wasn't known outside Germany. Crete showed the Allies that this new type of warfare would be key in future conflicts.

The US Army adopted a focused strategy. Where possible, it advocated that paratroopers should be deployed quickly and far behind enemy lines, working to gain control of key objectives, such as bridges and airports, to speed the advance of more heavily armoured units. In addition, when an opportunity presented itself, the airborne regiments would attack the enemy's rear and sever its lines of communication. It was hoped that the existence of such forces would pose a constant threat, forcing the enemy to expend resources defending its rear. It was a theory that proved true on the battlefield.

SENIOR STAFF WANTED to use parachute regiments, gliders and transport aircraft, but the limitations of the parachute regiments were extensive; while their rapid vertical deployment was seen as highly beneficial, without ground vehicles the paratroopers soon encountered problems, and without access to heavy weapons, the regiment had to rely on support from air and artillery units. The time needed to coordinate such support countered the benefits gained from the troops' rapid insertion.

Worse, they were vulnerable. Not just on the ground, but also in the air. Extensive planning was needed to ensure they had transportation and support, and that the landing zones were suitable both in terms of terrain and weather conditions. The units' endurance was also limited, and specially trained personnel and equipment were required, which was time-consuming and costly.

With the use of gliders, 'ordinary' regiments could be used and more cargo carried. It would also ensure that the men and equipment would arrive in the same place, at the same time, but a strategy like this required prepared landing strips and gliders were expensive. In the end, in autumn 1941, the US decided to try both and ordered new paratrooper and glider regiments to be formed. Particular importance was placed on the need for surprise, rapid deployment and efficiency in regrouping.

In the spring of 1942, four parachute infantry regiments were raised, followed by another four in the summer. Both German and British organisation of airborne units depended on a versatile compound divisional structure. The US followed suit. Its earlier tactical and economic assessments pointed to a division containing one parachute infantry regiment (PIR) and two glider infantry regiments (GIR). To quickly create the necessary PIRs and GIRs, it was decided to divide the 82nd Infantry Division that had just been recalled to active service.

When the 16,000 new volunteers were told that they would land on the battlefield in a glider, 4,500 went AWOL. Most returned, but with reservations. The fact that they became self-assured paratroopers was a testament to the GIR commanders.

"THE EXISTENCE OF SUCH FORCES WOULD POSE A CONSTANT THREAT"

ON 15TH AUGUST 1942, two units that would go on to become military legends emerged: the 82nd 'All American' Airborne Division and the 101st 'Screaming Eagle' Airborne Division. These were stationed in Fort Bragg, North Carolina, and Fort Benning, Georgia, respectively. The divisions had, in principle, the same function as a regular infantry division, but they were lighter in terms of personnel, weapons and equipment. One curious characteristic of these units was that they used pigeons as a back-up means of communication.

Of the division's 8,400 men, only one third (one PIR, one artillery battalion and one engineering company) could be dropped by parachute. The firepower was provided by 75-mm howitzers at divisional level and light grenade launchers at battalion and company level. The primary weapon against armoured units was the bazooka. There were few vehicles, only some Willys Jeeps and special scooters.

In the air, divisional transport was via Douglas C-47 Skytrain air-transport planes, the military version of the company's DC 3. Troops were also carried in Waco gliders. In addition to the escort planes, dropping a parachute battalion required 36 C-47s, while the insertion of a glider battalion required 59 Wacos and an equal number of tug aircraft. Thus, a high number of aircraft were required for large-scale insertions.

AIRBORNE
AA

82nd 'All American' Airborne Division insignia.

In addition to soldiers who had undergone basic training, many young men volunteered to join the parachute division, attracted by the unit's elite status. This special status was conferred by the unit's spectacular mode of transport to the battlefield and the relatively limited number of men permitted to serve, and was further enhanced by special insignia. The voluntary nature of the service, tough selection process and demanding training created a positive self-image and strong loyalty to the unit.

A SOLDIER'S BASIC training lasted 13 weeks and was standardised, meaning it could be carried out ▶

in several places around the country. The parachute course was conducted at Fort Benning over four weeks. After four jumps from a height of 250–300 metres and a night jump, the coveted silver-plated parachute badges were distributed. During the subsequent physically demanding divisional training, soldiers were rewarded for improvising and taking bold, offensive action. During a parachute insertion, there was always a risk that the troops would be spread over a wide area, and they needed to be able to act independently. For the same reason, the men were given professional training, so they became experts in numerous specialist tasks.

In addition to their efforts in North Africa, parts of the same battalion were dropped a few days later to secure an airfield near the Tunisian border. The force jumped on top of a heavily armed French unit, which luckily held its fire. In December, a sabotage team was dropped at night, but they did not find their target, and only a few made it back to their own lines. The result of these first airborne insertions was not particularly impressive, but it gave commanders valuable experience for future operations. Better planning and navigation training was necessary. The operation in Africa in the autumn of 1942 was the US's first airborne mission of the war, but it was only a rehearsal for what lay ahead. Sadly, the old adage that a bad rehearsal leads to a good opening show was brutally quashed.

A group of paratroopers from the 101st Airborne Division before the invasion of Normandy. Censors removed shoulder and helmet insignia from the picture.

US ARMY SIGNAL CORPS

IN THE LATE winter of 1943, it was decided that the 82nd Airborne Division would participate in the summer's invasion of Sicily. The mission was to occupy an area within the planned landing beach and prevent enemy counter-attacks. The operation involved the Allies' first major airborne insertion, and started a heated exchange between the Americans and British about how to use the limited number of aircraft available. The result was that the British got all the gliders, and the 82nd had to replace one of its two glider regiments with a parachute regiment. Worse, the division would be dropped in two rounds, blunting the impetus of a surprise attack and the gathering of its forces.

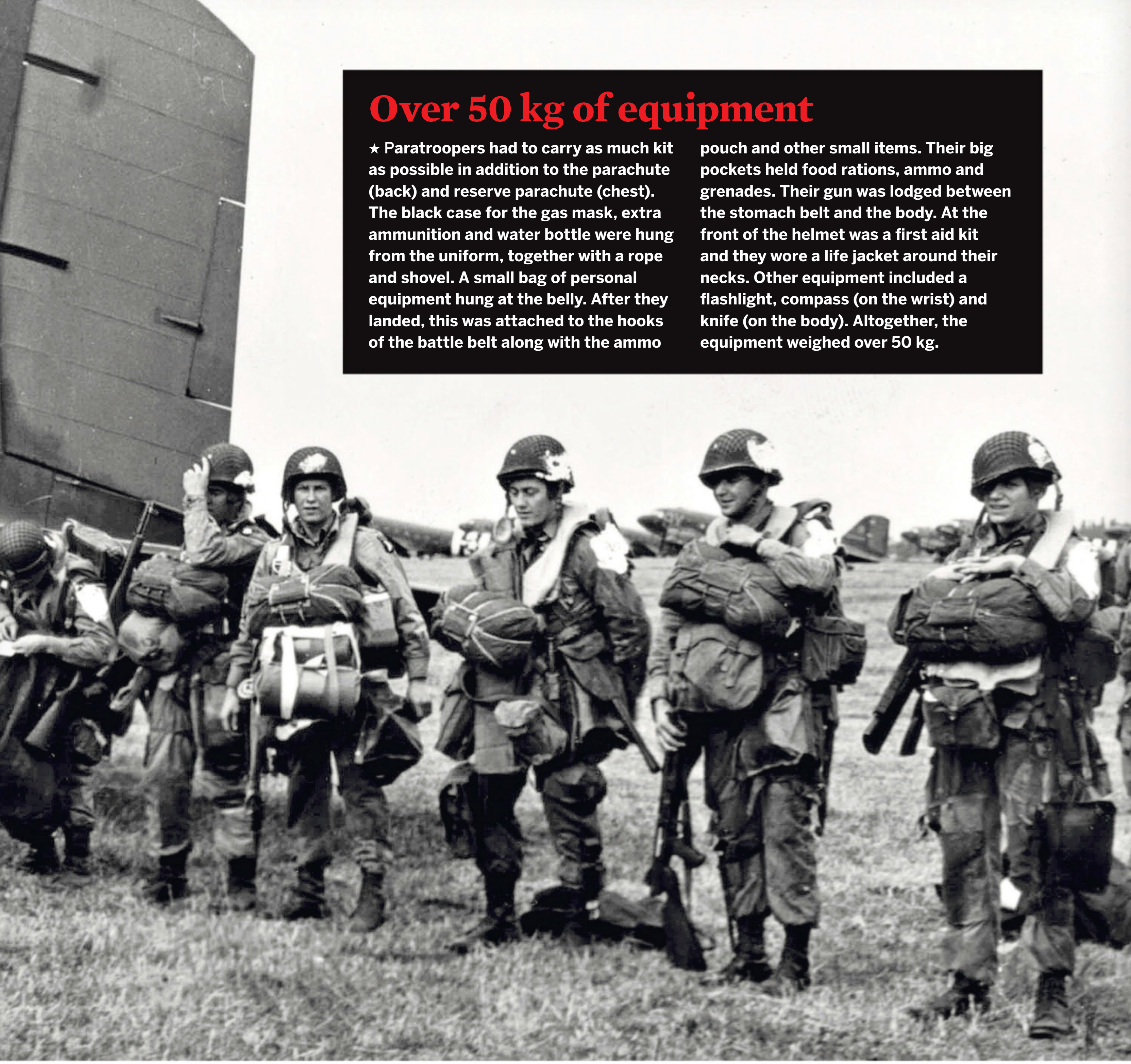
Flying in the dark with inexperienced pilots was also a major challenge. The invasion of Sicily began on 9th July 1943. For the 82nd Airborne Division, everything went wrong during the approach. Strong winds, poor night-time navigation and course corrections caused chaos in the aerial formations. Only one in five of the 3,400 paratroopers ended up in their landing zones. Once landed, however, the troops succeeded in causing great confusion within the area. Many of the British gliders were released early and crashed into the sea. Even more tragically, US reinforcements flown in two nights later suffered huge losses when they were shot down by their own navy. The British also suffered from 'friendly fire' incidents and the disaster of the Sicily operation was hushed up for months.

BEHIND THE SCENES, the operation was widely criticised. Just as in Germany after Crete, the efficacy of the airborne units was questioned. The critics were pacified, however, after a successful airborne operation in New Guinea in the autumn. According to the proponents of airborne operations, there was nothing wrong with the concept – the units just lacked experience and needed better navigation training. The conclusions of North

Graduates of the training programme were awarded silver-plated wings.

Over 50 kg of equipment

★ Paratroopers had to carry as much kit as possible in addition to the parachute (back) and reserve parachute (chest). The black case for the gas mask, extra ammunition and water bottle were hung from the uniform, together with a rope and shovel. A small bag of personal equipment hung at the belly. After they landed, this was attached to the hooks of the battle belt along with the ammo pouch and other small items. Their big pockets held food rations, ammo and grenades. Their gun was lodged between the stomach belt and the body. At the front of the helmet was a first aid kit and they wore a life jacket around their necks. Other equipment included a flashlight, compass (on the wrist) and knife (on the body). Altogether, the equipment weighed over 50 kg.



Africa had thus been reinforced. Both new technical equipment and the use of 'pathfinders', specially trained units that were dropped ahead of the main force to prepare the landing zone, should improve navigation and parachute deployment. Concern over the navy's target discipline, however, remained constant throughout the war.

Ironically, it turned out later that the Germans considered the Allied efforts in Sicily to have been successful – the airborne forces had slowed the German attack units significantly. It seemed that the measure of success of the airborne operations in Crete and Sicily depended entirely on the measurer's point of view and were diametrically opposite for attackers and defenders.

The offensive in the Mediterranean soon reached the Italian mainland. However, during a landing south of Naples, the Germans fought back. Over two nights in September 1943, two parachute regiments from the 82nd Airborne Division, almost 3,500 men, landed within their own bridgehead to reinforce their hard-pressed ground troops.

The parachute drop took place over the ancient city of Paestum with its Doric temples. This was the point where the Greek general Pyrrhus had advanced just over two millennia ago. At that time, ▶

the big battlefield innovation was elephants, now it was parachutes.

The conservative way this special, limited resource was being spent was criticised in some quarters, but the drop, the largest concentrated mass jump so far, was important for gaining experience and boosting morale both for the troops in the field and the commanders back at base. The 82nd had not seen action since the previous autumn's operation in North Africa, but now the unit would be dropped behind the German front at Salerno and given the chance to defend the Allied bridgehead.

Unfortunately, the pattern repeated. Poor planning and imprecise drops meant that the force was scattered far from its goal. However, the main force eventually succeeded in returning to its own lines, after fighting a guerrilla-style action in the mountain areas east of Vesuvius.

BY THE LATE autumn of 1943, preparations for the invasion of Western Europe were in full swing, and the entire 82nd Airborne Division, in addition to a parachute regiment, was transferred to England. One regiment remained in Italy and was attached to another airborne unit: the 1st Special Service Force (FSSF), a commando unit specialising in mountain and winter warfare. The FSSF achieved good results as light infantry on the Italian front, and it was the first force to arrive in Rome on 4th June 1944.

Two days later, D-Day started. Operation Overlord, the Allied invasion of Western Europe, began with the Normandy landings. The plan called for three divisions to be dropped as part of the operation: the British 6th Airborne and the US's famous 82nd and new 101st Airborne Divisions.

Once again, these units would be used to control the planned landing zone and secure strategic objectives to help the Allied advance. The US divisions, each reinforced with three PIRs and one GIR, were tasked with landing around 17,000 men in the dark, of which 13,000 were to be dropped by parachutes. A major effort had been made to avoid past mistakes. The planes were painted with three white 'invasion stripes' to reduce the chance of being fired upon by their own forces. Their approach vector was also set far from the navy's guns. A plan stands or falls by its end result, though, and the night-time operation on 6th August showed that the US airborne divisions were still dropping troops wide of the mark. The inexperienced air crews were also incapable of flying in formation on a complicated route in the dark under enemy fire. The glider pilots, in particular, struggled. Consequently, the troops were slow to regroup on the ground and only a few of the US airborne divisions' targets were taken in time.

"US AIRBORNE DIVISIONS WERE STILL DROPPING TROOPS WIDE OF THE MARK"

US SIGNAL CORPS

Soldiers from the 82nd Airborne Division on patrol in Saint-Marcouf by Utah Beach in June 1944. The airborne forces were there to protect the troops landing on the beaches.

Half of the airborne soldiers landed outside of the zone, were injured or reported missing, meaning that only 50 percent of the anticipated force was available to fight. Once again, high-ranking officers criticised the force's effectiveness. But, just like in Sicily, the enemy had a different opinion. The scattered airborne troops caused confusion among the German forces, and their presence is now viewed as an important reason why no decisive counter-attack was implemented during D-Day.

THE NEXT AIRBORNE operation occurred just nine weeks later as part of a drop near Nice, France. A force of just under 9,000 landed with parachutes and gliders. The operation began at night with pathfinder troops preparing the landing zone and cloth dummies attached to parachutes dropped as a diversionary tactic. Official reports described the mission as a success. But although there were fewer mistakes, it later emerged that the report was something of a fiction. Night drops still didn't work.

Operation Market Garden in September 1944 consisted of one British, one Polish and two US brigades – a total of 35,000 men. The purpose was to take control of important bridges in the Netherlands via air drops. This would ease the advance of the Allies' armoured units. With total air supremacy, the Allies believed that the benefits of daytime drops would outweigh the threat from anti-aircraft guns. Through a cruel twist of fate, however, the paratroopers came up against General Kurt Student, commander of *Fallschirmjäger* (Germany's parachute infantry), and worse, they were fighting

US SIGNAL CORPS

American paratroopers search the wreckage of a glider that crashed during Operation Market Garden.

in an area he knew well, having been a commander there four years earlier.

The US's first drop was successful and it fought well, but a lack of aircraft and bases meant that it took several days for reinforcements to arrive. This was one of the reasons the British did not take Arnhem, the goal furthest from the landing zone: it was a bridge too far – at least, it was too far given the forces' lack of air transport.

OPERATION VARSITY, THE war's last airborne mission in Europe, was launched in March 1945. Its goal was to support the Allies' crossing of the Rhine. It was the largest, single-day, single-location, airborne operation of the war; 17,000 men were dropped over four hours within a limited area near Wesel. The German units there were ready to face attacks, but despite their preparations, the operation ended in an Allied victory. Some later questioned the need for such an operation, pointing out that river crossings had been carried out successfully before without the need for such a costly approach.

Was Varsity implemented just so the airborne forces featured again before the end of the war? Several other plans for airborne drops were considered before the conflict ended, including some that were intended to open up new fronts in the enemy's rear.

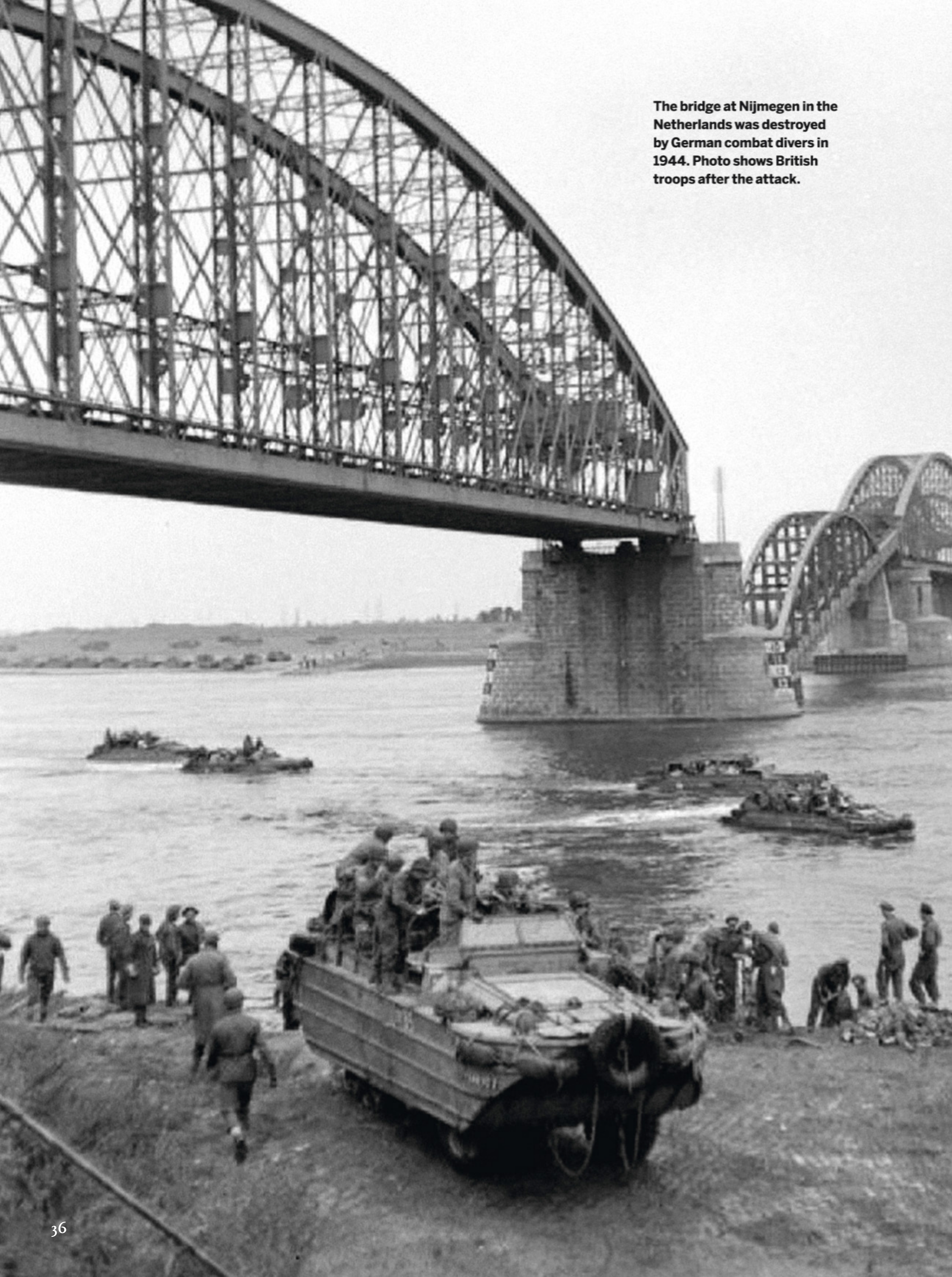
Interestingly, Operation Iraqi Freedom in 2003 used a similar tactic when the 173rd Airborne Brigade was inserted into Bashur Airfield to secure a northern front where ground units could be landed.

The airborne divisions' efforts in Iraq were certainly helpful from a US point of view, but they demanded large air resources and cost a lot in terms of lives and dollars. In practice, most of the time, the specialised units were used as light infantry; out of the 192 days the conflict lasted, the 101st Division spent only four days on parachute assignments.

Even after the extensive cuts made to the armed forces following the war, which took the number of divisions down from 89 to 10, the US kept and reinforced two airborne divisions. Recent development in transport resources means that these elite units, which can now be deployed with even greater speed, continue to be relevant in today's peace-keeping and advise-and-assist operations. As such, we can expect this band of brothers to continue marching through history for some time to come.

Bo Sunnefeldt is a former Ranger officer.

Further reading:
US Airborne Divisions in the ETO 1944–45 (2007) by Steven Zaloga ★ **US Airborne Units in the Mediterranean Theater 1942–44** (2006) by Gordon Rottman



The bridge at Nijmegen in the Netherlands was destroyed by German combat divers in 1944. Photo shows British troops after the attack.

German combat divers

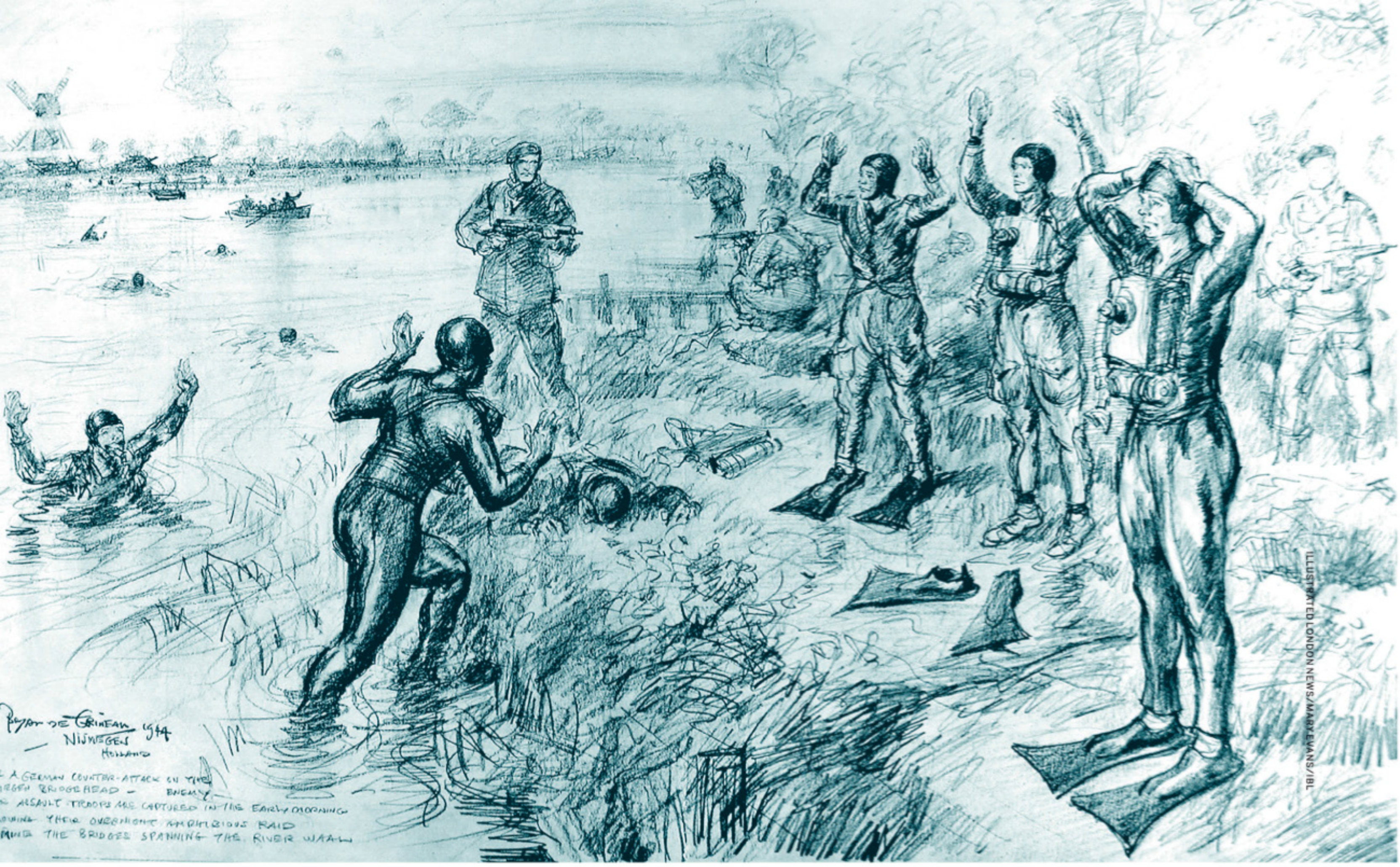
ATTACK FROM BELOW

Concealed underwater, K-Verband frogmen struck key targets with explosive devices. The German amphibious force played key roles in Market Garden and other operations.

TEXT: **PHILIPPE BOSTRÖM**

German combat divers prepare for their sabotage mission.

BPK/BAVARIAN STATE LIBRARY/HEINRICH HOFFMANN ARCHIVE


Bryan de Grineau 1944
Nijmegen
Holland
A German counter-attack on the
egen bridgehead – enemy
assault troops are captured in the early morning
owing their overnight amphibious raid
mine the bridges spanning the river Waal

ILLUSTRATED LONDON NEWS/MARY EVANS/IBL

Two German combat divers were killed and eight captured by the British after the attacks in Niljmegen. This picture reveals how the event was illustrated in the UK press.

The story of Germany's amphibious commandos began in the Greek port of Piraeus in the summer of 1942 with Austrian Alfred von Wurzian. At the time, he was an underwater cinematographer on a civilian expedition in the Aegean Sea led by Hans Hass.

Together, they experimented with self-contained underwater breathing apparatus (scuba), a closed system where air could be rebreathed after passing through a chemical filter to remove carbon dioxide. Closed oxygen systems had been around since the late 19th century and were used mainly for mountaineering, tackling fires in mines and as an escape route for submarine crews in underwater accidents. By 1942, however, development of this type of apparatus had all but stalled.

While Hass was interested in how the new technology could be used for underwater research, von Wurzian hatched the idea of using scuba systems in the military. Among other advantages, it provided access to new breathing apparatus that didn't create bubbles on the surface of the water that could reveal a diver's position. It enabled divers to perform sabotage operations, as they could infiltrate an enemy port undetected, equipped with explosive devices that were then placed at strategic targets.

Italian combat divers had already successfully used underwater troops for sabotage missions. Riding on specially adapted torpedoes, Decima Flottiglia MAS (X^a MAS) divers had snuck up on targets. They'd enjoyed particular success off the coasts of Spain, Gibraltar and Crete, where they had sunk several warships. X^a MAS's most successful operation, however, was an attack on the British naval base at Alexandria in 1941.

Here, frogmen took out two 32,000-tonne battleships, an oil tanker and a destroyer. The British fleet in the Mediterranean was temporarily put out of action allowing convoy after convoy of supplies, food and fuel to reach Rommel's troops in Africa.

AFTER A PERIOD of training with X^a MAS at La Spezia off the west coast of Italy, German recruits were ready to take part in their first field operations as combat divers. As soon as strategically important targets were discovered that couldn't be destroyed by conventional means, they were deployed by their commanding officer, Vice Admiral Helmuth Heye.

Operational orders came from the OKW Armed Forces High Command, led by General Alfred Jodl. Frogmen were handpicked from the various training divisions and sent to the front. Missions were carried out by the MEK (*Marine Einsatz Kommandos* – Naval Commandos), with each unit comprising a commander and 22 men divided equally across two groups.

The divers' main weapon was the torpedo mine, developed specifically for use in rivers. The cigar-shaped mine was five metres long and had three

Nijmegen
NETHER.
Antwerp
BELG.
GERMANY

The German frogmens' targets were Nijmegen and Antwerp.

chambers. The central chamber contained a hard plastic explosive called 'nipolit' and a timer that could be triggered at the touch of a button. The front and rear chambers were filled with ammonia gas, allowing the mine to be lowered quickly into the water. It could float just below the surface thanks to the mine's precisely calibrated buoyancy, which could be adjusted by a small cylinder. Two ropes were attached to the mine, allowing the divers to pull it behind them, and was camouflaged with brown paint to resemble driftwood.

German combat divers first saw action during the Allied offensive in Normandy in 1944. September 1944 would prove to be their most successful month. On 7th September, all available frogmen were assembled on the Dutch front. As before, two 11-men groups were formed. The first was commanded by Obermaat Orlowski while the second was led by Feldwebel Schmidt. The targets of the two groups were located in the same area: the port lock of Antwerp and the bridges at Nijmegen.

During Operation Market Garden, the Allies landed almost 35,000 paratroopers.

THE ALLIES CONTROLLED the port of Antwerp, which was one of the largest in Western Europe and of great strategic value. Its lock ensured that a constant water level was maintained regardless of the tide, so every ship entering and leaving the port had to pass through the lock first. Destroying this would be an extremely risky operation as the lock was protected by extensive torpedo nets and strong tidal waves from the River Scheldt. This made it impossible for frogmen to reach the docks by submarine or diving from aircraft. The only alternative was to use specialist 'Linsen' motorboats. Each 'Linse' was small and fast, virtually silent and modified to accommodate a crew of five men.

On the night of 15th-16th September, two Linsen left Rotterdam. In addition to the helmsman, each boat carried a unit leader and three combat divers. The Linse under Oberleutnant Dörpinghaus was the first to reach the lock. The three frogmen, Feldwebel Karl Schmidt, Mechanikermaat Hans Greten and Maschinenmaat Rudi Ohrdof, dived into the cold water. Towing a torpedo mine, they began to make their way towards the target.

ALONG THE WAY, Schmidt got caught on an iron hook sticking out of the wall of the lock. His rubber suit tore and cold water seeped in, soaking his cotton inner suit. Schmidt's body temperature immediately dropped. However, he kept his head, filled his breathing apparatus with oxygen and managed to stay afloat.

It would now require both speed and action to accomplish the mission without Schmidt succumbing to hypothermia. After passing through several torpedo nets, they managed to reach the 35-metre-wide lock opening. The divers lowered the mine to the bottom by the gate, 18 metres below the surface, and started swimming back to the boat. Schmidt was now feeling the effects of incipient hypothermia, and his two companions had to drag him back to the motorboat. The three exhausted divers were hauled aboard and the boat set course for the Scheldt. Along the way they met the other attack boat, commanded by Oberleutnant Prizhorn. Prizhorn's unit had failed to find the lock opening in the thick fog that lay over the water. Together, both boats now returned to the main base.

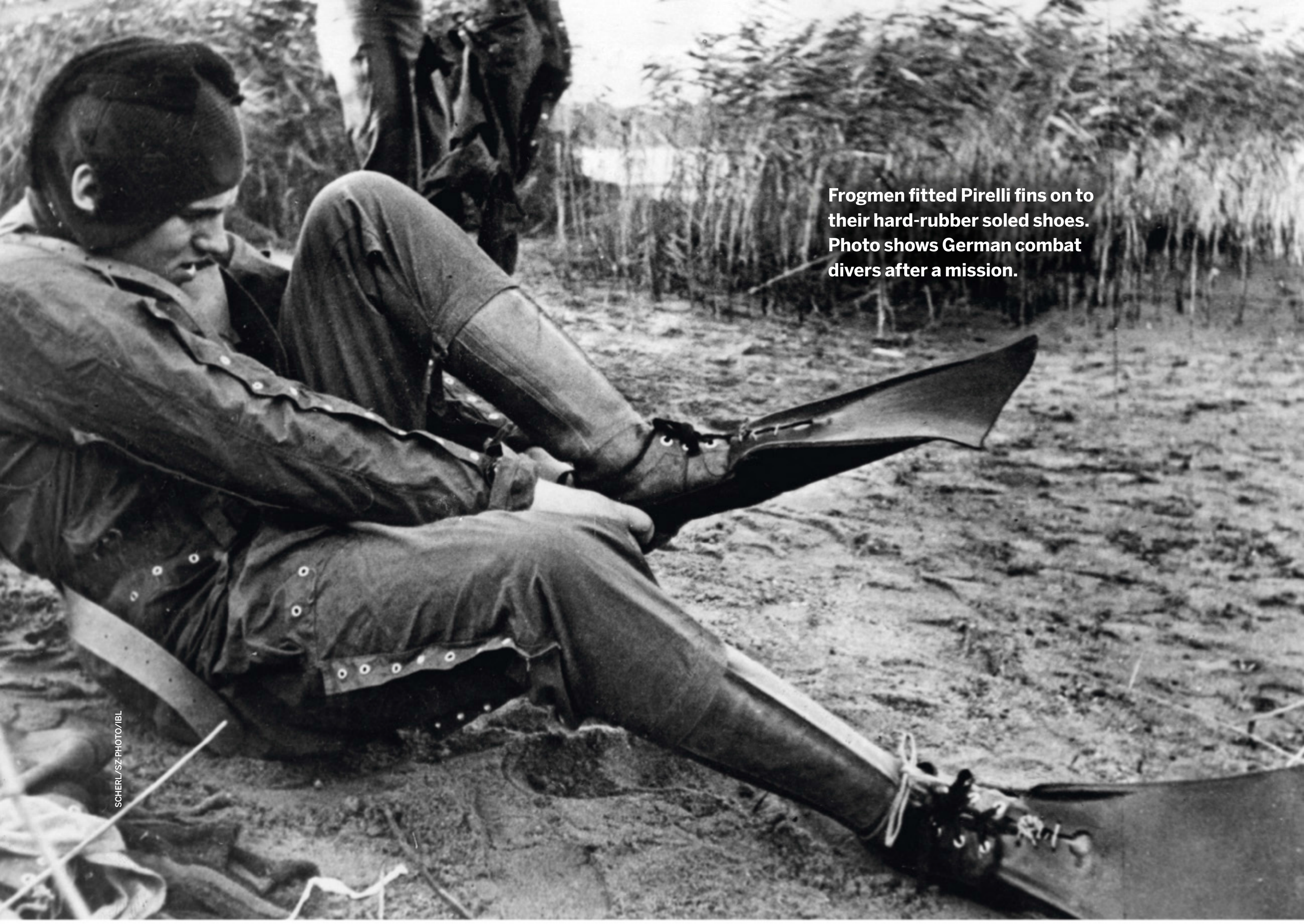
> **"GERMAN FROGMEN WERE NOW TASKED WITH TRYING TO DESTROY THE TWO STRATEGICALLY IMPORTANT BRIDGES"**

BUNDESARCHIV IMAGE 146-1971-033-01

General Alfred Jodl had combat divers handpicked from training divisions and deployed to the front.

Behind them, they could hear the mine explode at the appointed time. The lock was completely destroyed and remained unusable for three months. The operation was a German success and a major setback for the Allies.

ON 17TH SEPTEMBER 1944, during Operation Market Garden, the Allies dropped 34,600 paratroopers near Nijmegen and Arnhem in the Netherlands. The aim was to bring a quick end to the war by a concentrated attack on Germany. Led by Field Marshal Montgomery, British forces had ►



Frogmen fitted Pirelli fins on to their hard-rubber soled shoes. Photo shows German combat divers after a mission.

SCHERL/SZ-PHOTO/IBL

created a dangerous bridgehead across the Waal River, a branch of the Rhine.

RETREATING GERMAN TROOPS had failed to blow the two bridges over the Waal, one a railway bridge and the other a massive road bridge. The German frogmen were now tasked with trying to destroy the two strategically important bridges to halt the British offensive.

The task of destroying the bridges at Nijmegen was not a straightforward one, due to strong currents and a lack of knowledge about the local conditions. As the Waal River flowed in an arc through enemy territory, the combat divers would have to travel seven kilometres to reach the heavily guarded targets. Fortuitously, plans of the bridges had been obtained, making it possible to determine the type of explosive charge required to destroy them.

THE FIRST GROUP, consisting of the divers Funkmaat Heinz Bretschneider and Obergefreiten Walter Jäger, Gerhard Olle and Adolf Wolchendorf, slipped into the water under cover of darkness on 29th September and started paddling with their flippers towards the railway bridge with their torpedo mine. After travelling seven kilometres without being detected, they attached the mine to the bridge and then drifted on with the current back towards German territory.

They lost each other in the darkness, but behind them the torpedo mine detonated on schedule, destroying the bridge completely. When dawn came, Bretschneider hid in an old boat resting on the riverbank. Here he lay out of sight until dusk fell again, when he was able to pass through the enemy line without being detected. He was met by Jäger, but the other two frogmen failed to appear, having been captured.

The second group, tasked with blowing up the road bridge at Nijmegen, consisted of eight combat

“THEY LOST EACH OTHER IN THE DARKNESS, BUT BEHIND THEM THE TORPEDO MINE DETONATED ON SCHEDULE”

German combat divers trained together with X^a MAS divers in Italy.

divers. Heavy artillery fire had delayed the operation. The divers descended into the water equipped with two torpedo mines attached to each other. These would be separated as they approached the target.

At first, the operation proceeded smoothly, but as soon as the mines were separated, problems began. The current was so strong that the torpedo mines proved almost impossible to control as they drifted apart. To steer them to the desired positions, the divers were forced to cut the 'grappling line' connecting the two mines (which would ensure the mines sank either side of one of the bridge's pylons) to steer them individually. But the leading frogmen were already too close to shore and missed the bridge, their torpedo mine drifting into a sandbank where it got caught.

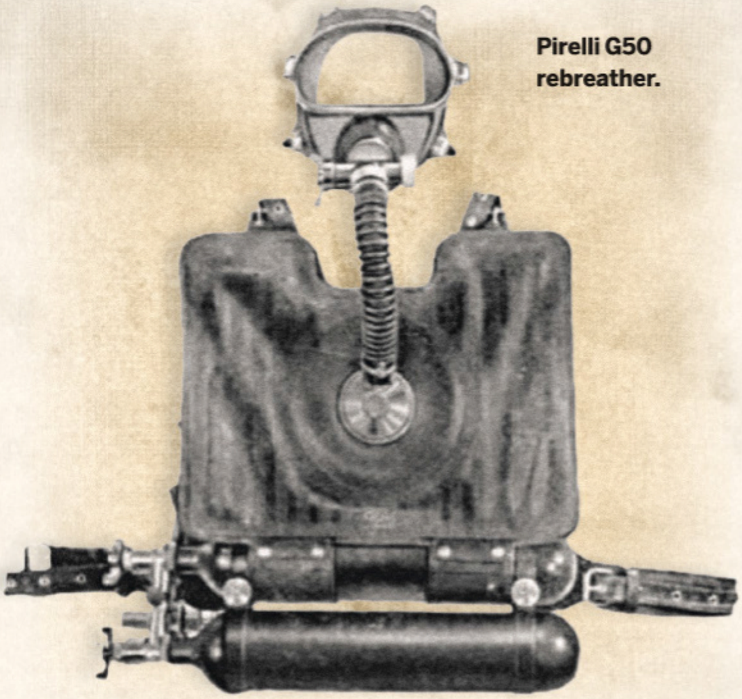
THE SECOND GROUP were no luckier, also seeming to miss the bridge. In a last-ditch effort, it was decided to sink the mine under one of the bridge spans. Despite their exposed position, they managed to escape detection and swam towards the first group whose mine remained stuck in the sandbank. After several failed attempts to free the mine, they gave up, sunk it and fled.

They were now faced with a serious problem. Having entered the water much later than expected, they did not dare to drift down the Rhine because the railway bridge, 500 metres further downstream and targeted by Bretschneider's group, might blow up as they passed under it. They had to swim upstream. After several hours of struggling against the current, the sky lightened and the exhausted divers had to look for a hiding place along the riverbank. However, they were discovered by the British, who opened fire. One frogman was killed instantly while another sustained fatal injuries. The remaining six were captured. One mine detonated to damage the road bridge but the other was defused by the British.

The following day, Dutch news reported that the railway bridge had exploded just as several tanks were passing over it and that the road bridge had been damaged. Despite the heavy losses – only two of the 12 combat divers returned – the attack boosted German troop morale. The attack was praised in both the domestic and foreign press. *The Times* dubbed it one of the "most daring operations of the war" while the *Picture Post* spoke of the most astonishing act of heroism. Heinz Bretschneider and Walter Jäger were hailed as heroes and awarded the German Knight's Cross on 6th October 1944.

Philippe Boström is an archaeologist.

Further reading: **German Combat Divers in World War II** (2008) by Michael Jung ★ **Hitler's Secret Commandos** (2008) by Helmut Blocksdorf.



Pirelli G50 rebreather.

Divers' equipment was largely Italian-made

★ **Breathing apparatus.** German frogmen were equipped with Dräger rebreathers, which were more advanced than the Pirelli-made version used by Italian divers. The breathing tank was attached to a Pirelli G50 full-face mask.

★ **Fins.** The Germans used the Italian Superga fins that were manufactured by Pirelli. The fins were asymmetrical with an open sole that fastened around the hard rubber shoes worn by the divers.

★ **Wetsuit.** Pirelli also made the divers' wetsuits. They were black rubber with an insulating cotton layer that helped the diver stay warm. The two-piece suit comprised an upper part with a jacket without a hood and a lower part with leggings. Divers donned woollen underwear under the wetsuit, and covered their head with a thin cloth cap.

The divers wore Radomir watches.

★ **Knife.** The divers' only weapon was a combat knife, which was attached to the waist by means of a carbine hook. The knife was mainly designed for use in close combat on land.

★ **Diving instruments.** The divers were equipped with a compass, diving watch and depth gauge. The Panerai Radomir watch – renowned among divers – was manually wound and ran for up to 48 hours. Its mechanical case was manufactured by Rolex and was luminescent underwater, as were the compass and depth gauge, also by Panerai.

★ **Explosive charges.** Each diver carried six explosive charges that were attached to his harness. Small 2.5-kg charges were attached to enemy vessels by means of a suction cup, while a 4.5-kg charge could be attached to Allied ships or other targets with two magnets.

Equipment was dropped by parachute to SOE agents operating in Europe.

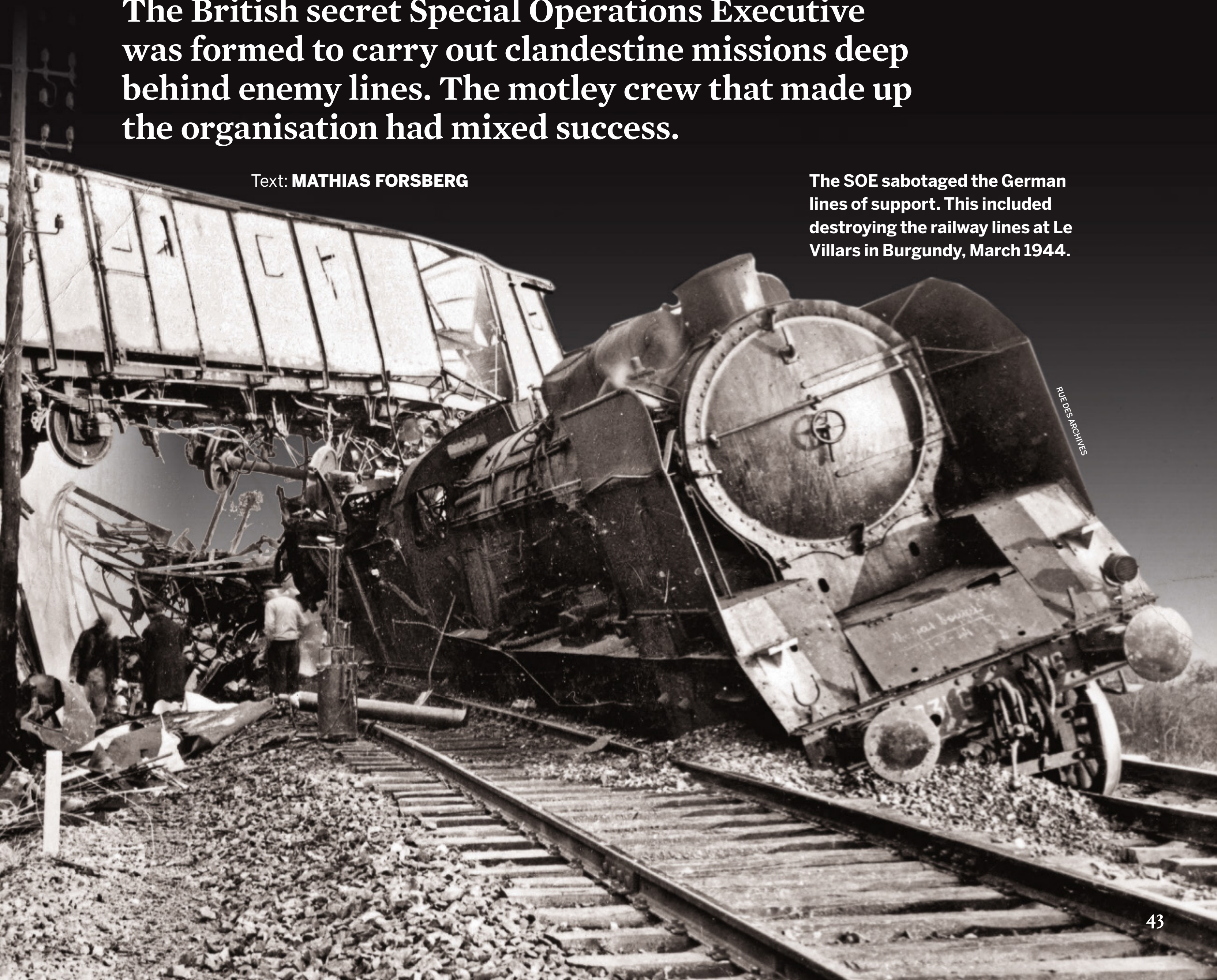
The SOE gave French Resistance operators code names, or *noms de guerre*. Simone Segouin, seen here with a German MP 40, was known as Nicole Minet.

Special Operations Executive

SPIES AND SABOTEURS

The British secret Special Operations Executive was formed to carry out clandestine missions deep behind enemy lines. The motley crew that made up the organisation had mixed success.

Text: **MATHIAS FORSBERG**

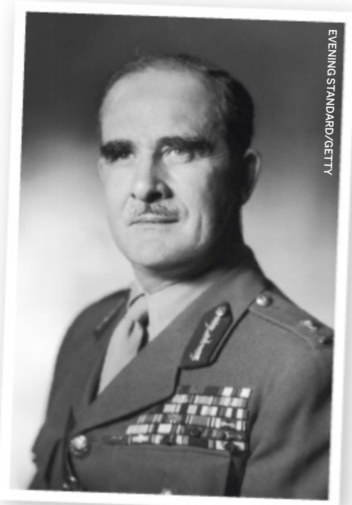


The SOE sabotaged the German lines of support. This included destroying the railway lines at Le Villars in Burgundy, March 1944.

RUE DES ARCHIVES

After the fall of France in the summer of 1940, Britain's future seemed bleak. The nation was desperate for any chance to turn the tide of war or at least to level the playing field. One idea adopted by the country's leaders was the rapid assembly of an irregular force that could push the offensive back into German-occupied Europe and rally the continent's subjugated people against Hitler.

A hastily improvised secret unit was set up under the name Special Operations Executive (SOE) and given the task of organising unconventional strikes deep into German-occupied territory.



EVENING STANDARD/GETTY

Major General Colin Gubbins.

FOLLOWING A DECISION in the War Cabinet by Winston Churchill, the SOE was formally established on 22nd July 1940. Its first head was the Minister of Economic Warfare, Hugh Dalton, who was ordered by the British Prime Minister to "set Europe ablaze". The situation was so precarious for the British that Dalton openly stated that the new force should be modelled on guerilla forces, including the Irish Republican Army (IRA). In total, over 13,000 people served in the SOE, 3,200 of whom were women.

The fledgling organisation had to wait until November 1940 to get a suitably sized headquarters, a large office building on Baker Street in London. Thanks to its locale, the few who knew of its existence sometimes referred to SOE staff as The Baker Street Irregulars, an allusion to fictional detective Sherlock Holmes's young informers. Churchill gave the group its other nickname, "the ministry of ungentlemanly warfare". As bombs fell on London, the SOE set about recruiting men and women willing to cross the English Channel and organise sabotage efforts on the continent, under the noses of the Germans.

IN THE FIRST months of the SOE's existence, in the autumn and early winter of 1940, it was not occupied Europe that was ablaze; instead it was British cities, including London, that were burning

Every SOE agent was trained to parachute behind enemy lines. SOE photo from 1941.

SCANPIX

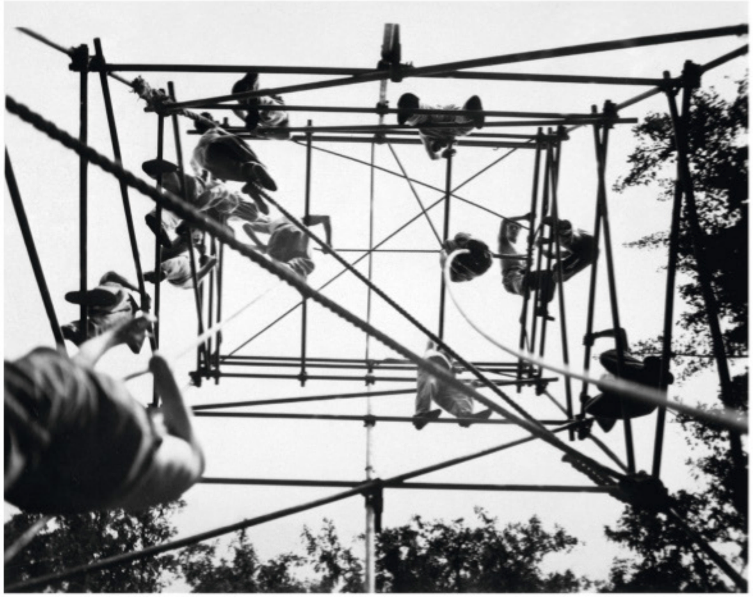
due to the Luftwaffe's nightly bombing raids that marked the latter part of the Battle of Britain. Fears of a German invasion were high and one of the SOE's early tasks was to form the Auxiliary Units (aka Churchill's Secret Army), a stay-behind operation whose members would go underground and fight if Britain was successfully invaded. It was not until 1942, when the threat of an attack across the Channel had receded, that the Auxiliary Units were disbanded.

Running an organisation that needed to expand while remaining secret was inherently problematic. It was difficult to reach the best and most motivated recruits when few were aware of the SOE's existence. A skeleton crew was created from other parts of the intelligence services, including the SIS (Secret Intelligence Service). Later to become MI6, the SIS already had a unit, Section D, investigating secret offensives and guerrilla warfare. Recruits also came from Electra House, a Foreign Office-funded operation involved in releasing propaganda in subjugated territories, including Austria, Czechoslovakia and Poland. Together, these secret operatives founded a small but powerful organisation.

Brigadier Colin Gubbins was given responsibility for training and operations. He had written manuals on irregular warfare before the war and by the autumn of 1940 was already a front-line veteran – first as British envoy in Warsaw in September 1939, where he evaded the Germans to cross the border into Romania, and second as a commander in operations against the German army in northern Norway in the early summer 1940.

GUBBINS BEGAN BY seeking out suitable properties for SOE training bases. Many were fine apartments, mansions or castles – the sort of places that wouldn't have looked out of place in a 007 movie. Ian Fleming, the author of the James Bond series of novels, was never an SOE operative – he was in the Royal Navy's intelligence service – but he had several acquaintances in the Executive who later helped inform Fleming's central character. One of them was the future author's brother, Peter.

Peter was involved in several operations for the SOE during the war and is an excellent example of how the careers of SOE personnel evolved almost at random. Before the war, Peter Fleming, who was educated at Eton, had travelled on adventures in Brazil, Central Asia and China, making a small fortune selling dramatised accounts of his travels on his return. He was a reserve officer when the war started, but because of his experience in China, he was chosen to help support the Chinese Nationalist government against Japan. Instead of going to Manchuria, however, Peter Fleming was ordered to Norway to counter the German invasion there in the spring of 1940.


US OFFICE OF STRATEGIC SERVICES

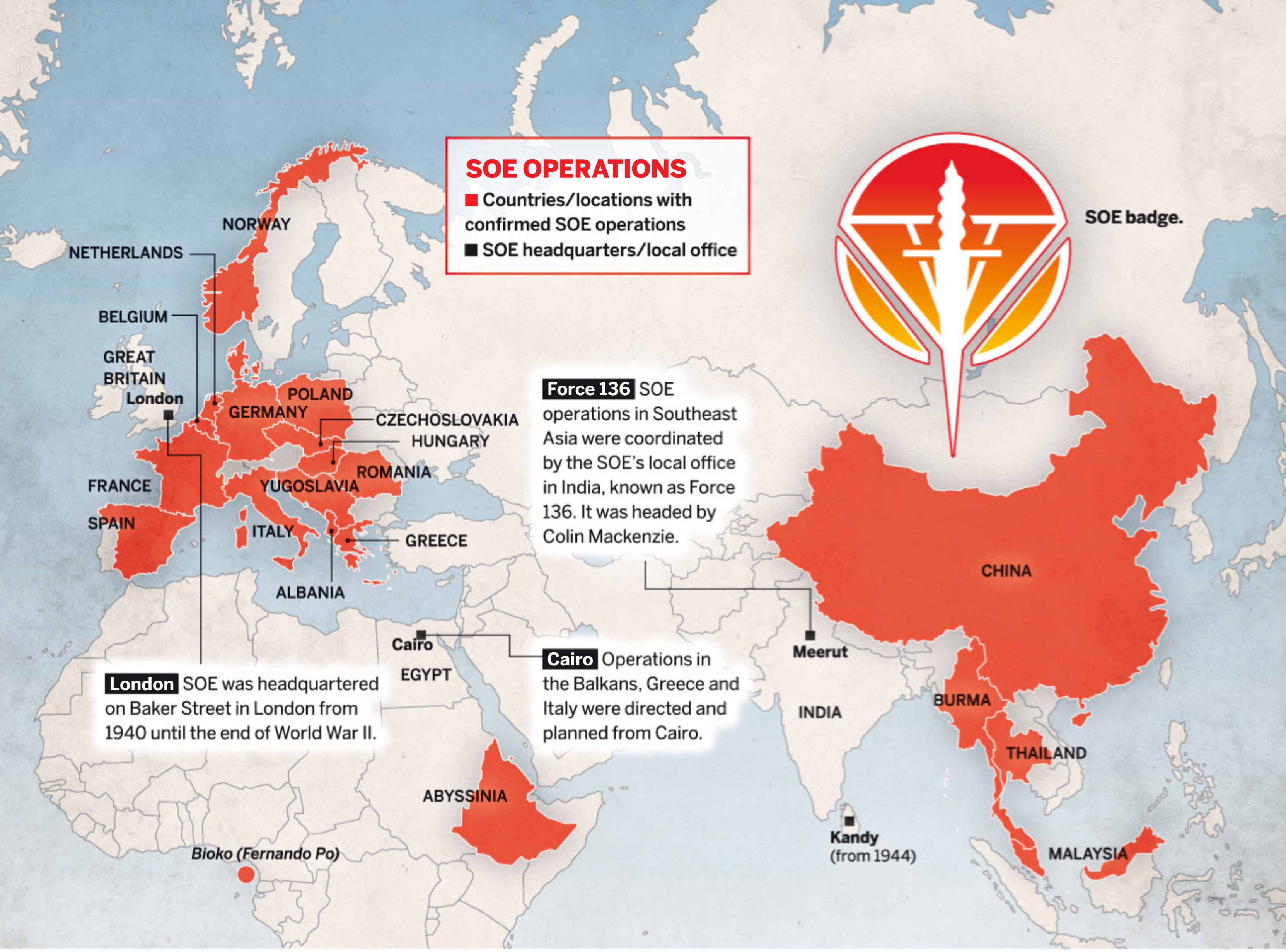
Agents tackle an obstacle course at Milton Hall as part of their covert-operation training in 1944.

"AS BOMBS FELL ON LONDON, THE SOE SET ABOUT RECRUITING"

Eventually, he returned to Scotland, where Gubbins put him in charge of the secret stay-behind contingent of the Home Guard. After that, he was posted to Greece and ended the war as head of Section D – military counter-intelligence – in New Delhi, with responsibility for Southeast Asia. Peter Fleming also recruited his youngest brother, Richard Fleming, to the SOE.

As the Gubbins and Fleming stories indicate, the organisation tended to recruit handpicked acquaintances and family members to maintain secrecy. This meant that most of the early British members were typical 007 characters: hard-headed, macho, privileged types who sometimes put their egos ahead of their assignments. As time went on, however, a number of women joined along with men from the occupied countries. There is a wealth of anecdotes about SOE agents, which even taken with a pinch of salt, make ripping yarns.

ONE OF THE organisation's better-known characters was fluent French speaker Denis Rake. Gun-shy, adventurous and openly homosexual, Rake became an SOE radio operator but was later caught crossing the demarcation line between Vichy France and the German-occupied zone ►



SOE OPERATIONS

🟥 Countries/locations with confirmed SOE operations

■ SOE headquarters/local office

NORWAY
NETHERLANDS
BELGIUM
GREAT BRITAIN
London
POLAND
GERMANY
CZECHOSLOVAKIA
HUNGARY
ROMANIA
FRANCE
YUGOSLAVIA
SPAIN
ITALY
GREECE
ALBANIA
Cairo
EGYPT
ABYSSINIA
Bioko (Fernando Po)
Meerut
INDIA
CHINA
BURMA
THAILAND
Kandy (from 1944)
MALAYSIA

London SOE was headquartered on Baker Street in London from 1940 until the end of World War II.

Cairo Operations in the Balkans, Greece and Italy were directed and planned from Cairo.

Force 136 SOE operations in Southeast Asia were coordinated by the SOE's local office in India, known as Force 136. It was headed by Colin Mackenzie.

SOE badge.

during a botched smuggling operation. Rake, who was a notorious drunk, managed to escape after partying with the local police. On reaching Paris, he continued carousing with like-minded young men, including a German staff officer with whom he had a passionate affair. Baker Street wisely turned a blind eye; as long as an agent fulfilled his mission – and Rake did – his private life was of no concern, even if it put him in personal danger.

However, it was more common for operatives to be deployed back to their native countries. Missions in France tended to fall to those with a mixed Franco-British background or who were part of an exiled group, such as de *Gaulle's Forces Françaises Libres* (Free French Forces), whose London membership swelled as the war progressed

FROM THE GUBBINS'S mansion in the Scottish Highlands to the south coast's chalky cliffs, the SOE's increasingly diverse membership gathered to learn the skills they would need. There they were trained to kill with their bare hands and camouflage themselves in urban or natural landscapes. They were also shown how to quickly change a disguise, derail a train and free themselves from a pair of handcuffs using only a piece of wire and a pen. If an agent survived the risky training and passed the final parachute course, they were considered ready for operations in hostile territory.

Setting Europe ablaze required the right equipment, and a series of engineers and scientists arrived at the secret houses to develop concealed weapons and explosives. For example, students from

The SOE's motorised Sleeping Beauty canoe could travel underwater.

“THERE IS A WEALTH OF ANECDOTES ABOUT SOE AGENTS”

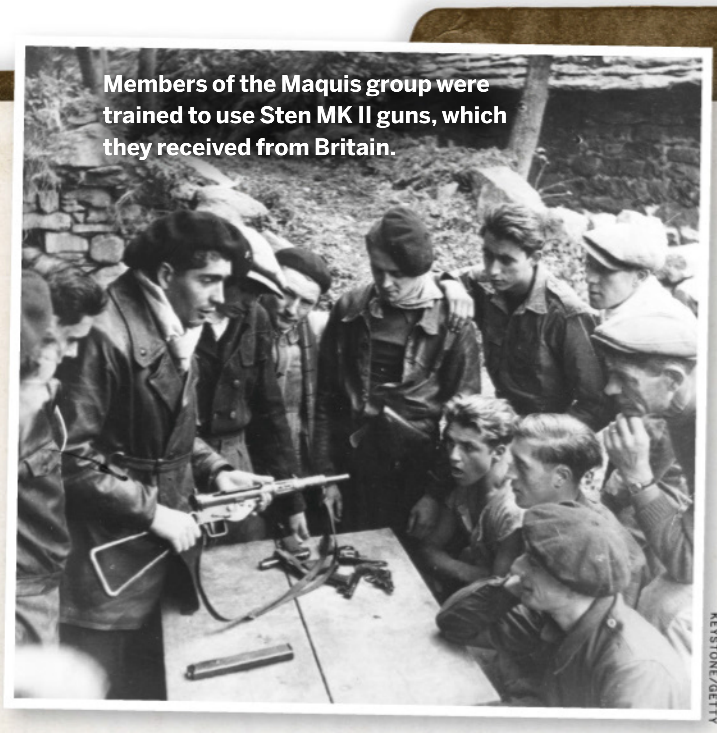
Hertfordshire University worked at The Frythe, a country house in Welwyn, Hertfordshire, that SOE termed Station IX. From there, they developed a disposable pistol concealed in a cigarette packet and the Sleeping Beauty canoe that could move underwater for short distances.

The headquarters of Section XV – the camouflage section – was housed in The Thatched Barn, a mock-Tudor hotel in Borehamwood, and was headed by film director Elder Willis. Among other things, the hotel's occupants experimented with exploding rats and animal dung made from papier mâché. Another lab issued ground carborundum, which agents used to seize up the wheels of rail cars that were due to transport the 2nd SS Panzer Division “Das Reich” to Normandy following D-Day in 1944. The tanks were stuck for a week.

THE SOE FREQUENTLY clashed with other agencies and competition was a constant problem. The SIS was overtly negative towards the new organisation. The head of the service, Stewart Menzies, described the Executive as “amateur, dangerous, and bogus” and devoted a great deal of energy to opposing it. Pettiness aside, there was also a real concern that SIS's intelligence gathering and established network of agents would be adversely affected if other networks began blowing up bridges and factories in the same area.

The SOE didn't have any friends in the military either. The Navy was reluctant to hand over even a few small boats on the grounds that it risked parallel naval structures being built. Arthur ‘Bomber’ Harris and the RAF also despised the SOE, and Harris – who personally directed the carpet bombing of German civilian targets – called the SOE's activities “unethical” and made sure it had to fight for every aircraft it needed to parachute agents and radios into Europe.

IT WAS ALMOST a year after the creation of the Special Operations Executive that the first headline-grabbing operation took place. In June 1941, four men from the Free French Forces blew up a transformer station at Pessac, outside Bordeaux, in an SOE operation. Three of them parachuted in behind enemy lines before hooking up with a fourth agent who was already in France ▶



Members of the Maquis group were trained to use Sten MK II guns, which they received from Britain.

KEYSTONE/GETTY

French information was indispensable for D-Day

★ The SOE's work with the French Resistance was crucial to the war's outcome. One of the main tasks of resistance partisans was to spy on the Germans. All important information was sent to London by courier or radio.

The coasts of Normandy and the Atlantic Wall defences were carefully mapped in the months leading up to D-Day. In 1944, the SOE spy network received 1,000 telegrams a day and 2,000 drawings of German installations per week. The Allies found out which forces were guarding which parts of the Atlantic Wall, how many reserves were further inland, and how many guns and machine guns each part of the German defensive wall contained. Information came from fishermen, for example, who set nets outside the German bunkers, and forced labourers, who had helped build the defences.

A painter even stole a detailed survey plan of the facilities while redecorating the office belonging to one of the heads of the Atlantic Wall's defence.

French radio operators were called “pianists”. They were often tracked down by the Germans and killed.

on another mission. After blowing up six of the eight transformers, they fled across the border into Spain, where they spent the remainder of the operation's war chest, the equivalent of £1,400 (about £71,000 in today's money), on wine, women and song. Only in August did they return to England from the continent, where, in addition to a destroyed power station, they "left a trail of broken glass, if not hearts, behind them".

However, the operation in Pessac gave the SOE a welcome respite in Whitehall and strengthened the organisation's position. It had shown that three airborne soldiers could do more damage than a hundred RAF bombers against the same target.

Less than a month later, the Special Operations Executive was suspected of being behind the Krylbo Bang, when a German ammunition train exploded at the Krylbo railway junction in Sweden. However, no evidence has ever emerged that such an operation existed and academics now believe it was probably an accident.

"THREE AIRBORNE SOLDIERS COULD DO MORE DAMAGE THAN A HUNDRED RAF BOMBERS"

THE STRUCTURE OF the organisation could vary greatly depending on the country in which it operated. In some countries, such as Norway, there was a clear government in exile and the terrain made it easy to get in and out of the country unnoticed. In

Blowing up railway lines was the most common form of French Resistance sabotage.

IMPERIAL WAR MUSEUM

others, such as France, Greece and Yugoslavia, Britain worked with both nationalist and communist resistance movements, which often fought against each other with more fervour than they did the Germans. The SOE was forced to set up continually adapting parallel structures for the same country, and for France as many as six separate sections were created because of the country's ongoing internal power struggles.

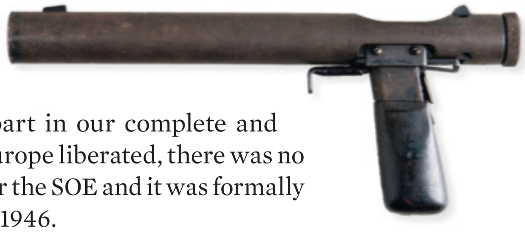
The SOE worked with the US Office of Strategic Services (OSS), SAS and French Resistance to create chaos behind German lines in the run-up to D-Day. The operation was known as Jedburgh and formed part of Operation Overlord.

IN SEPTEMBER 1943, Dalton was succeeded by Gubbins, who had long been the driving force of the organisation and now personified it as its chief executive. By this time, the SOE had become warier of making direct attacks because it risked widespread reprisals against the civilian population. London also reasoned that the operation's network of resistance fighters and agents was more useful for covert missions than in open attacks, where they would be vulnerable. The impending invasion of Normandy also needed the network's resources, and in France, in particular, discreet industrial sabotage and train derailments became more common activities.

By the time D-Day arrived on 6th June 1944, the SOE had landed over 400 agents in France, who in turn equipped and coordinated thousands of French volunteers. The BBC sent coded messages to let resistance groups know when to launch different sabotage missions aimed at crippling the rail and telecommunication networks, thereby severely hampering German resistance efforts. After the liberation, hundreds of thousands of French claimed to have been resistance fighters for years, with many winning prominent positions in post-war French society as a result.

IN THE FINAL phase of the war, SOE personnel often interacted directly with the army to facilitate the advance, arranging support from the armed groups still in occupied territory. The SOE also cooperated with the SAS in more direct action during the final stages of the war, with coordinated attacks just behind Germany's front line. The need for intelligence and sabotage diminished in the final year; instead, it became more important to prepare the ground for the coming civil administration, rescue Allied prisoners of war and secure other key targets for the arrival of the British Army.

The Allies' commander-in-chief General Eisenhower gave clear recognition to the SOE, stating that "the disruption of enemy rail communications, the harassing of German road moves and the continual and increasing strain placed on the German war economy and internal security services throughout occupied Europe by the organised forces of resistance played a very considerable part in our complete and final victory". With Europe liberated, there was no meaningful task left for the SOE and it was formally disbanded in January 1946.


The Welrod Mk II was a silenced, irregular forces' pistol designed to be fired with the muzzle in contact with the target's body.

Not every SOE op was successful, however. Indeed, the following three missions must be considered outright failures. There were various reasons why things went awry: squabbling local resistance groups, merciless reprisals against the civilian population and even a counter-espionage operation launched by the Abwehr. The missions in question were Operation Harling in Greece, Operation Anthropoid in Czechoslovakia and Operation North Pole in the Netherlands. You can read about them all over the next few pages. ✪

READ ABOUT THREE SOE OPERATIONS

Napoleon Zervas (second left) and some of his EDES officers.

1. OPERATION HARLING

Location: Greece.
Goal: To cut supply lines feeding Rommel's Afrika Korps.

The first major sabotage operation carried out by the SOE came in the autumn of 1942 and targeted the railway viaduct at Gorgopótamos in Greece, one of three bridges that spanned wide mountain valleys in the region and carried goods to the coast. The goal of the operation was to block German supplies, which were being ferried from Greek ports to Rommel's forces in North Africa. The British ambition was to coordinate the attack on the viaduct with the forthcoming British offensive at El Alamein, which was planned for the end of October 1942, thereby reducing German support to the Afrika Korps.

The operation was run from the SOE's regional office in Cairo, which was notorious for the fractious and debauched nature of its staff. Appointed to lead the operation was Lieutenant Colonel ECW 'Eddie' Myers, second in command in Cairo and "the only parachute-trained professional sapper officer in the Middle East", or so he claimed.

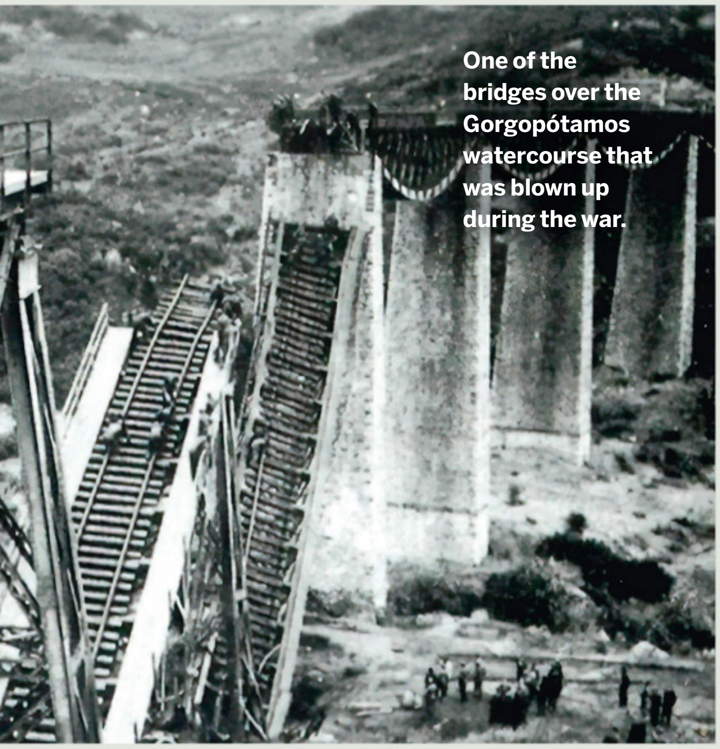
Edmund Charles Wolf Myers, who was known as Eddie.

A total of 13 men were dropped in central Greece. It was planned that the group's second in command, Major CM Woodhouse, would ultimately remain in the region with two radio operators to liaise with the emerging Greek resistance. The 13 men were divided into three groups, each with a commander, an interpreter, a sapper and a radio operator. The groups were, as was often the case in the SOE, a hodgepodge of nationalities, with the British contingent supplemented by New Zealanders, a Sikh from India and a couple of Greeks.

The team was due to fly in on three US B-24 Liberators on 28th September, but had to turn back because there was no confirmation signal from the ground. They landed instead on the night of 30th September, but one of the planes missed its landing zone and dropped its team too far west, resulting in a long trek to reunite with their colleagues.

THE OTHER TWO groups soon found the local Greek resistance and established links with them. The Greek resistance had two competing units, the Republican EDES and the Communist ELAS, which were greater enemies of each other than of the occupying powers (Germany, Italy and Bulgaria had divided Greece into occupation zones).

One of the leaders of the EDES military branch, Napoleon Zervas, welcomed the British and was keen to strengthen ties with the Allies, not least because he realised that a successful operation meant that the EDES would receive British support in the form of weapons, money and political influence. ELAS was more hesitant, but local leader Aris Velouchotis, contrary to his instructions, offered cooperation, making Operation



One of the bridges over the Gorgopótamos watercourse that was blown up during the war.

“THE TEAM WAS DUE TO BE FLOWN IN ON THREE B-24 LIBERATORS”

Harling one of the few occasions when EDES and ELAS launched a joint attack on the Axis powers. The third group had been rescued from Italian soldiers by the ELAS, and Velouchotis thus ensured the reunification of the 13 British-led soldiers.

In order to cut the rail link between Athens and Thessaloniki, one or more of three viaducts in the Bralos area had to be destroyed. Myers had to decide for himself which target was the most suitable and after surveying the area, chose Gorgopótamos. The defending garrison was estimated to consist of only 80 Italian soldiers, a section of the bridge had steel beams, which facilitated the attachment of explosives, and the terrain should enable them to escape easily. To succeed, however, the group would first have to take out the Italian defenders at the bridge’s ends.

AFTER ALMOST TWO months in the mountains, with constant regrouping and an incident where some Greek children tried to eat a package of plastic explosives in the mistaken belief that it was fudge, the group was well behind schedule, but by 23rd November, they were ready to strike. Then fog in the valley caused the attack to be postponed, so the attack didn’t occur until 23.00 on 25th ►

Rival partisans

★ When the SOE launched Operation Harling, only a few radio transmitters were left after the retreat of the British Army in 1941 and local resistance groups from the mountains of Crete. After the success at Gorgopótamos, Myers and Woodhouse became Britain’s military envoys in Greece with the task of uniting ELAS and EDES to form a single guerrilla force. But Operation Harling remained the resistance groups’ only joint action.

Myers and Woodhouse worked in the spirit of the SOE, which, to SIS’s chagrin, took no long-term political view but supported anyone willing to fight the Germans. Formally, London supported the Greek government in exile and the Greek monarchy, neither of which had significant support from either group. But Myers argued that both ELAS and EDES should be supported militarily by Britain.

The resistance groups dutifully carried out some attacks, but it became increasingly clear that they were planning separately to seize power in Greece. Myers did his best to broker peace while persuading London to support a joint Greek struggle, but after the invasion of Sicily in July 1943, Greece became less important to the Allies. In October 1943, Myers organised talks in Cairo between ELAS and EDES, but relations soured, open skirmishes broke out between the groups and Myers was dismissed.

Myers’s departure left Woodhouse alone with an impossible task. The situation became so fraught that he feared for the safety of the British and US agents stationed there. When the Soviet offensive in the Balkans caused the Germans to depart Greece in September 1944, Woodhouse fought to unite the groups and take advantage of the situation, but the Greek factions were only interested in preparing for a takeover. British troops landed in Greece in 1944, but by December, civil war had broken out. The British sided with EDES against ELAS. It took until 1949 for ELAS to be defeated.

UNIVERSAL HISTORY ARCHIVE/GETTY

Soldiers from the ELAS Greek resistance.

▶ November. In total, the attack force consisted of 150 men, including 86 from ELAS, 52 from EDES and the 13-man British-led team. The plan itself was simple: two small groups of Greeks would cut the rail and telephone lines in each direction shortly before the attack, then the two main Greek forces would each attack a bridgehead to eliminate the Italian garrison. Finally, the British-led specialists would set the explosives and blow up the bridge.

THE ATTACK BEGAN as planned, with one garrison retreating after a brief exchange of fire. At the other end, however, the Italians held out far longer than anticipated and Myers eventually ordered the demolition to begin even though the Greeks were still attacking. The British had requisitioned eight mules to help carry the explosives down the rocky ravine. After descending, they discovered that the bridge's beams weren't the expected shape, forcing the men to resize the plastic explosives on the spot. It was an hour after midnight before all the charges could be fitted, but by 01.30, Myers was able to detonate them. The explosions were powerful and collapsed two sections of the bridge, while the central pillar was effectively demolished. Shortly after, the small team fitted a second set of charges, which detonated at 02.21 and completed the job. By 04.30, the entire assault force had withdrawn with only four wounded.

UNFORTUNATELY, THE ATTACK came after the Battle of El Alamein and the American landing in the French part of West Africa, reducing the strategic impact of the attack considerably. The mission didn't even result in cutting supplies to the Afrika Korps; the Germans had already decided not to ship supplies from Greece any more. Like the British, they had analysed the situation and realised that transport between Belgrade and Athens depended on a single railway that could easily be sabotaged by partisans. As a result, they never opened a second support line, despite the front in North Africa shifting eastwards in the summer of 1942. The bridge was rebuilt in 1948 but has since been replaced by a tunnel, which opened in 2018. ✪

NOBEL'S EXPLOSIVE
No. 808.
Alfred Nobel
GLASGOW
THIS EXPLOSIVE IS ONLY TO BE USED

The SOE often used the plastic explosive Nobel 808 in sabotage missions.

2. OPERATION ANTHROPOID

Location: Czechoslovakia. **Goal:** To eliminate SS-Obergruppenführer Reinhard Heydrich.

KEYSTONE-FRANCE/GETTY

Reinhard Heydrich became Reich Protector of Bohemia-Moravia in 1941.

At 10.30 on 27th May 1942, a Mercedes 320 convertible cruised along the road en route to Prague from the suburb of Panenské Břežany. In the car were the Deputy Reich Protector for Bohemia-Moravia, SS General Reinhard Heydrich, and his driver Johannes Klein. Heydrich – who was confident of his own safety – travelled in an open car and without an escort.

He had just waved goodbye to his family, leaving home later than usual because he had to travel to Berlin that evening. The pair hadn't covered much of the 14-kilometre journey to Prague when the car approached a hairpin bend that forced the car to slow down. A tram stop lay nearby.

AS THE CAR slowed to negotiate the winding road, it was watched by a man on the pavement who had a newspaper under his arm. After a moment, he switched the paper's position, placing it beneath his other arm. It was the signal the two men further up the street had been waiting for.

One of them, Jozef Gabčík, stepped out in front of the car with a British Sten submachine gun, with its characteristic angled stock, pointed it at the car and pulled the trigger. To Gabčík's horror, the gun jammed. By this time, the car had come to a stop. But rather than instructing Klein to accelerate away from the ambush, the supremely arrogant Heydrich drew his pistol and started to get out of the vehicle to arrest Gabčík.

Unseen by the SS general, the second assassin, Jan Kubis, approached the back of the car and threw an anti-tank grenade at the principal architect of the Holocaust. Heydrich was hit by shrapnel from the grenade but continued to climb out of the car – now in the direction of Kubis, who had also been hit by grenade fragments. Stunned by the explosion, a confused exchange of fire ensued. Gabčík, having tossed his jammed Sten, was firing an American Colt M1903 at Heydrich. Kubis also opened fire but neither managed to hit him.

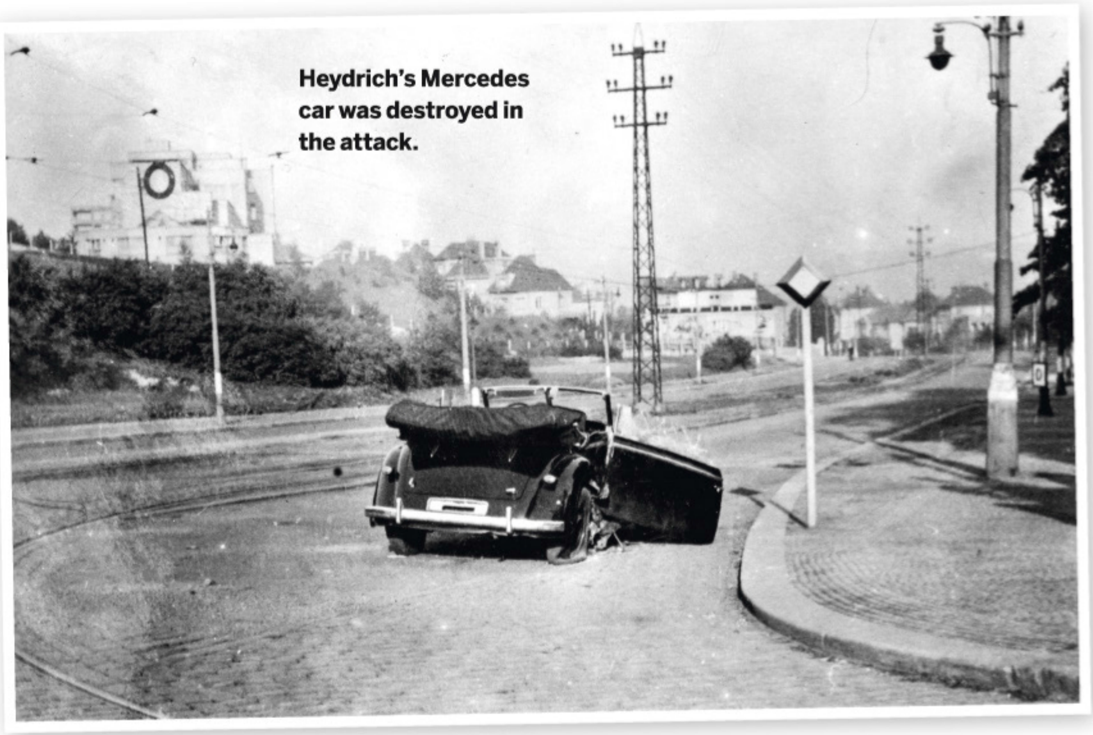
"HEYDRICH WAS HIT BY SHRAPNEL FROM THE GRENADE BUT CONTINUED TO CLIMB OUT OF THE CAR"

KUBIS ESCAPED MOMENTS later on a bicycle, a bleeding Heydrich staggered behind for a few steps, still pointing his pistol. Heydrich yelled at Klein to continue after Gabčík as he sank to the ground, blood pouring from a deep wound in his left side.

Klein chased Gabčík, who after a few blocks fled into a butcher's shop and shot Klein in the leg. He then barrelled out of the building and took a tram to the group's hideout. The two assassins didn't realise that Heydrich was seriously wounded and thought the mission had failed.

A Czech woman and an off-duty policeman came to Heydrich's rescue, stopping a lorry that took ►

The Sten Mk II was a favourite among resistance movements because it was easy to dismantle and hide.



Heydrich's Mercedes car was destroyed in the attack.

UNIVERSAL HISTORY ARCHIVE/GETTY

Jozef Gabcík.

Jan Kubis.

► him to hospital. After a few days of treatment, his condition seemed to be stabilising, but then he took a turn for the worse and died on 4th June 1942. The SOE thus took its greatest scalp of the war.

THE LEAD-UP TO the assassination began in the autumn of 1941. Hitler felt that the regional protector of Bohemia-Moravia, the former German Foreign Minister Konstantin von Neurath, was too soft on the Czech population. The Führer demanded tougher measures to quell resistance and increase production, prompting him to appoint Reinhard Heydrich as Deputy Reich Protector, formally subordinate to von Neurath but de facto the new Commandant of Bohemia-Moravia.

Hitler called him "the man with the iron heart", while the Czechs knew him as "The Butcher of Prague". Heydrich had made a splashy career in the German police force and when he was stationed in Prague, the Czechs immediately contacted the SOE to prepare an assassination attempt against him. Ironically, as head of the Reichssicherheitshauptamt, Heydrich was also head of the international police organisation Interpol, whose activities continued both during and after the war.

Heydrich lived with his family in a small suburb nine kilometres north of Prague and travelled every day between his home and headquarters in the city. To assert his invincibility, he often travelled in an open-top Mercedes without any escort.

THE CZECHS WERE put in touch with Colin Gubbins, then head of the Poland and Czechoslovakia department, who helped arrange training, equipment and transport for a team of Czech agents. The operation was code-named Anthropoid and of the more than 2,000 Czech soldiers in exile in Britain, around 20 were selected for intensive training by the SOE. Gabčík was chosen as the leader along with Karel Svoboda, but the latter was later replaced by Kubis after Svoboda suffered a serious head injury during training.

While the men were training, SOE worked on producing fake identity papers and adapting the anti-tank grenade used in the attack. The modified No 74 Mk I Sticky Bomb could be concealed in a briefcase, and the team practised with it extensively. The seven men involved in the attack hadn't been to Prague before, but SOE still believed that the mission could be carried out as planned.

On the night of 28th December 1941, the group was parachuted in, but the navigator aboard the Halifax plane that dropped them miscalculated their position, so instead of dropping into Pilsen as expected, the group landed east of Prague. Undeterred, they managed to get to Pilsen without being detected and then proceeded as planned to Prague, where the assassination was to be carried out. Somewhat unexpectedly, they received a lukewarm reception from some sections of the local resistance, with some even demanding that the operation be called off because it was likely to lead to vicious reprisals from the Germans.

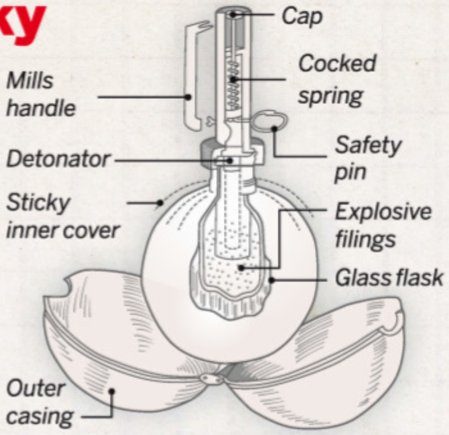
They were right to be concerned. In the 24 hours following the attack, the Nazis searched more than 20,000 homes looking for the perpetrators, and more than 200 Czechs, many with no link to the resistance, were

HULTON DEUTSCH/GETTY

The Lidice massacre of 10th June 1942 was carried out in retaliation for the murder of Heydrich.

No 74 sticky bomb

★ To use this grenade, agents first removed the outer casing, exposing the sticky inner cover, then pulled out the safety pin and threw the grenade at the target. A modified version of the sticky bomb was used to kill Heydrich in 1942.



“THE SOE THUS TOOK ITS GREATEST SCALP OF THE WAR”

executed before Heydrich had died. The Gestapo then turned on the village of Lidice, which they wrongly believed had sheltered the agents. The Germans surrounded the village on 9th June and executed all the men over 16, and sent all the women to concentration camps. The children were sent to Poland and murdered shortly afterwards. Unlike other atrocities committed by the Reich, the Germans openly reported the events. They even had a filmmaker document the razing of the village.

DESPITE THE REPRISALS, the SOE agents were still at large, so the Germans issued an ultimatum: if the assassins were not caught by 18th June, a new wave of terror would sweep through Prague. In the end, it was one of the SOE agents’ own trusted resistance comrades, Karel Čurda, who told the Gestapo where the men were hiding. Eight of them, including Kubis and Gab ík, died in a church in Prague where they had barricaded themselves. After a protracted shootout, the assassins killed themselves to escape capture and interrogation. In October 1942, over 300 more people with ties to the SOE men, along with those who had helped conceal them, were executed at Mauthausen concentration camp. After the war, Čurda was arrested in Czechoslovakia, where he was sentenced to death as a traitor to his country and hanged in 1947. ✠

The No 74 sticky bomb was developed by the Ministry of Defence.
Small Arms Training
EXPLOSIVES
THE STICKY BOMB
was the creation of MD1
Churchill's Toyshop – for cl
on enemy tanks or arm

3. OPERATION NORTH POLE

Location: The Netherlands. **Goal:** To use SOE agents to uncover Allied invasion plans.

BUNDESARCHIV, BILD 146-2005-0153

A German soldier receives a message.

By the autumn of 1943, the Allies had a network of agents on the continent and could mobilise close to 500 resistance fighters armed with SOE-dropped weapons for the imminent invasion – at least, that was the belief in London. In fact, the Germans had been feeding the SOE fake information for almost two years, resulting in 54 agents being captured as soon as they jumped into the Netherlands. Many later died. In addition, over 200 equipment airdrops fell into German hands.

Hermann Giskes duped the SOE.

IN NOVEMBER 1941, the SOE sent two agents, saboteur Thys Taconis and radio operator Huub Lauwers, to The Hague to set up a network of agents. At the same time, Major Hermann Giskes became head of the Dutch branch of the German intelligence agency Abwehr. Giskes immediately began tracking Lauwers’s transmitter and, by taking a bearing, coupled with info obtained from a German collaborator, was able to arrest Lauwers and Taconis in March 1942.

The arrests happened quickly, and the Germans managed to seize ciphers and code material, and ▶

REMEMBER THE ENEMY IS LISTENING

SOE radio operators received messages believed to be from agents – but German intelligence was providing the scripts.

"A YEAR LATER, ABWEHR HAD AS MANY AS 18 PARALLEL RADIO CHANNELS TO LONDON IN THE NETHERLANDS"

Huub Lauwers as a soldier.

arrest all those involved without London being any the wiser. Giskes gave Lauwers two choices: send the SOE false intelligence or be executed as a spy. Lauwers chose the first option. (All sides, including Britain, executed enemy agents who were caught in civilian clothes.)

London bought the scam. The SOE radioed through information about a new agent who would land in the Netherlands on the night of 27th March, along with a major drop of equipment for sabotage operations. The Germans took up position in the advertised spot, lit three red signal lights to mark the landing zone and waited. With no planes in sight after two hours, the Germans began to wonder if they had been rumbled and if the RAF would drop bombs instead of a Dutch agent. Eventually, however, a British plane flew overhead at an altitude of just 200 metres, dropping five dark parachutes – four crates plus the agent. Giskes let out his breath – the hoax had worked.

BEFORE LONG, THE Germans began a major counter-intelligence campaign code-named North Pole by Giskes, but more widely termed *Englandspiel* (England Game) by the Germans involved. The operation soon attracted so much attention that Hitler was informed of its progress every night by the Abwehr's top commander, Admiral Canaris.

Germany's success was due as much to German cunning as to SOE incompetence. SOE procedure demanded that every 16th letter in messages sent by operatives be deliberately miskeyed. This let those receiving the intelligence know that the message was being sent by a genuine agent acting on their own free will, but Lauwers's transmissions were free of errors, which should have alerted London that he was operating under duress. One of the SOE's operators in Britain, Leo Marks, pointed out the error-free nature of the transmissions to his superiors but his warnings were ignored. On a later occasion, in an almost astonishing case of incompetence, London even radioed one operator that "You ought to use your security checks."

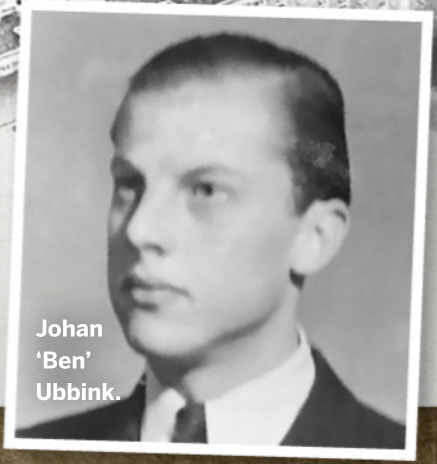
A year later, Abwehr had as many as 18 parallel radio channels to London in the Netherlands and

Agents escaped and warned SOE

★ Two SOE agents managed to escape from Haaren prison camp on the night of 30th August 1943. Pieter Dourlein and Johan Ubbink managed to get to the Dutch consulate in Bern, Switzerland, by train, and from there sent a warning to the SOE – just before a major operation was due to begin. When they arrived back in Britain, they were immediately arrested on suspicion of being German spies. This was because Giskes's men had said that German double agents were on their way to Britain. It was only after four months of interrogation that the embittered agents were released.

Haaren prison camp.

Pieter Dourlein.



Johan 'Ben' Ubbink.

was pretending to send reports from some 50 Dutch agents. The SOE ignored all the warning signs and as late as April 1943 wrote a memo saying, "The sabotage organisation as planned is now complete [in the Netherlands]. It comprises five groups containing 62 cells and totalling some 420 men. These groups are now well equipped with stores and are ready for action." In reality, 43 of the 56 agents sent to the Netherlands had been captured by the Germans and this would have continued had not two captured Dutch agents managed to escape in late summer 1943 and make their way back to Britain via Switzerland and Spain.

Once back, they barely managed to persuade the SOE that they were legitimate operators because Giskes had sent messages saying that the Germans had infiltrated parts of the Dutch network and were sending double agents to England.

IN THE WINTER of 1943-44, Giskes noted a decrease in communications from London and when new radio transmitters were discovered in the country, he deduced that the Dutch escapees had reached London and that the "England game" was finally over.

After a few months of dutifully exchanging meaningless messages with London, Giskes decided to call off the operation on 1st April 1944 and sent the following message:

"Messrs, Blunt, Bingham and Successors, Ltd [Stop] You are trying to make business in the Netherlands without our assistance [Stop] We think this rather unfair in view of our long and successful cooperation as your sole agent [Stop] But never mind, when you will come to pay a visit to the continent you may be assured that you will be received with the same care and result as all those you sent before [Stop] So long!"

THE MESSAGE WENT out from all radio transmitters in clear text and thus the SOE's biggest fiasco of the war was over. Giskes kept his word and allowed most of the Dutch agents to escape execution by firing squad, but when the Abwehr was taken over by the SD, the SS's intelligence agency, in the spring of 1944, 47 of the 54 agents were transferred to the Mauthausen concentration camp, where they were executed a few days after their arrival on either 6th or 7th September 1944.

Mathias Forsberg is a military history writer.

Further reading: **SOE: The Special Operations Executive, 1940-46** (1999) by MRD Foot.

Scarred colonel: Europe's most dangerous man

He freed Mussolini, tried to assassinate Churchill and dispatched commandos dressed in US uniforms behind enemy lines. Towards the end of World War II, Otto Skorzeny was seen as a serious threat to the Allies' plans.

ULLSTEIN/GETTY

Mussolini boards a German plane as part of his rescue.

It was a dull, grey Sunday in central Italy on 12th September 1943, four years into World War II, and the tide of war had turned decisively in the Allies' favour. Italy's deposed dictator, Benito Mussolini, was sitting in room 201 of the Campo Imperatore Hotel. Sombre and impassive, Il Duce pondered his fate. Two months earlier, he had been overthrown in a coup d'état. Since then, the new government had moved him from place to place to prevent him from being rescued. He had ended up in a small holiday resort in the Gran Sasso mountains, 13 miles north-east of Rome.

LOOKING OUT through the window, Mussolini suddenly saw a number of gliders. They landed in the small courtyard in front of the hotel. German commandos jumped out of the craft and rushed towards the building.

A few minutes later, the door to Mussolini's room burst open. In the doorway stood an SS soldier with a large scar across his left cheek.

"Duce, the Führer has sent me! You are free!" The scarred man was Otto Skorzeny, Nazi Germany's leading commando. He quickly led Mussolini out into the courtyard. Meanwhile, a small single-engine plane had landed outside. Mussolini hesitated before boarding, but Skorzeny impatiently urged him on.

SKORZENY SQUEEZED into the small plane as well. The pilot protested in horror – it hadn't been easy to land in the small field at the top of the mountain; taking off with just one passenger would be difficult enough, let alone two. But Skorzeny refused to get out – he would accompany Mussolini at any cost. The little plane wobbled away over the field, lifted a few metres off the ground, then disappeared into the ravine that stretched out beyond the improvised runway. Everyone thought the men were lost, but at the last moment, the pilot managed to regain control of the plane.

"GERMAN COMMANDOS JUMPED OUT AND RUSHED TOWARDS THE BUILDING"

A few days later, at a German airfield, Skorzeny handed the Italian dictator over to Hitler.

"You have performed a military feat that will become part of history," Hitler told Skorzeny. It was no exaggeration. The daring rescue became legendary. For Hitler's regime, it was an important propaganda tool. It also breathed new life into the Italian Fascist movement. With Mussolini's help, the Germans continued to fight in Italy even after the country's new government surrendered to the Allies. Thus, Skorzeny's bravery probably helped ►

PROFILE

OTTO SKORZENY

Born: 12th June 1908, in Vienna.
Participated in: Eastern Front, Gran Sasso raid, Budapest coup, Battle of the Bulge.
Awards: Iron Cross, Knight's Cross of the Iron Cross with Oak Leaves.

Like Hitler, Otto Skorzeny was originally from Austria. At the age of 22, he joined his native country's Nazi Party.

The paratroopers who took part in Operation Oak received less attention than Skorzeny.

ULLSTEIN/GETTY

prolong the war. It is therefore understandable that the Allies named him Europe's most dangerous man.

OTTO SKORZENY was born in Vienna in 1908, the son of an engineer. Even at a young age, he showed an unusual sense of adventure and strength of will. He received the long scar on his cheek during a fencing competition at the University of Vienna, when he duelled without wearing a mask.

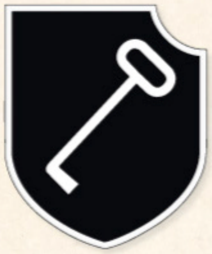
At the age of 22, Skorzeny joined Austria's Nazi Party. In 1938, he joyfully welcomed the Nazi annexation of Austria, the Anschluss. Skorzeny even played a role in events – he saved President Wilhelm Miklas from being assassinated by angry Nazis. Instead, the deposed head of state was put under house arrest.

Skorzeny then became a trainee officer in the SS-Leibstandarte, Hitler's personal bodyguard. There he quickly demonstrated his talent for special operations. When Germany invaded the Soviet Union in 1941, Skorzeny was put in charge of a group within the SS, the Nazi Party's paramilitary organisation. The aim was to take over the Soviet secret police headquarters at Lubyanka, in Moscow.

However, Hitler's forces never succeeded in capturing the Soviet capital and, some time later, Skorzeny was wounded by shrapnel.

"SKORZENY HAD NO TROUBLE GETTING HIS IDEAS ACCEPTED"

While recovering in hospital, he read everything about covert military operations that he could get his hands on and bombarded the SS leadership with suggestions regarding commandos. Skorzeny had no trouble getting his ideas accepted, and in 1943 he was appointed head of a new SS commando force.



The Leibstandarte SS Adolf Hitler grew from a bodyguard regiment into an armoured division.

It was not only by freeing Mussolini that Skorzeny helped prolong the war. Just over a year later, he carried out another crucial operation. In summer 1944, the German front against the Soviet Union collapsed. In the process, Hitler's allies Romania, Bulgaria and Finland surrendered. Hungary also seemed to be close to laying down its arms. Hitler had learned that Hungary's leader, Admiral Miklós Horthy, had been secretly negotiating with the Soviet Union, and he told Skorzeny: "I rely on you and your men." Skorzeny acted quickly and ruthlessly.

IN THE AFTERNOON of 15th October 1944, Horthy announced Hungary's withdrawal from the war over the radio. He had barely finished speaking when Skorzeny and his commandos stormed the presidential palace and captured the admiral. The plan was to force Horthy to agree that a pro-German government would take over Hungary and continue the war.

The admiral would probably have refused had it not been for the fact that Skorzeny had a very special trump card: just a few hours earlier, Skorzeny had tricked the Hungarian leader's son into a trap, knocked him unconscious and abducted him – wrapped in a Persian rug. Fearing for his son's life, Admiral Horthy signed a paper guaranteeing that Hungary would continue to fight on Germany's side. Skorzeny's next mission was just as high profile.

THIS TIME he assembled a number of German soldiers who were proficient in English. Dressed in US uniforms, their aim was to spread chaos behind Allied lines.

The soldiers were deployed during the German offensive in the Ardennes in 1944 and caused panic. Among other things, Supreme Allied Commander Eisenhower feared an assassination attempt and went into hiding in Paris. From there, he had thousands of wanted posters printed that bore Skorzeny's name and photograph, and the words "Spy", "Assassin" and "Saboteur".

OTTO SKORZENY didn't realise how much the Allies scorned him. When the war ended in May 1945, he surrendered to the US and offered his services in the fight against communism.

But the Allies threw him in prison, where he was accused of war crimes. The charges mainly related to his decision to allow German soldiers to operate in enemy uniforms. By pointing out that the Allies had used the same tactic, Skorzeny was acquitted. As he left court, prosecutor Abraham Rosenberg said, "I still think Skorzeny is the most dangerous man in Europe."

After the war, Skorzeny lived an unsettled life. Most of his time was spent in dictator Franco's Spain. In July 1975, just months before Franco's death, Skorzeny died of cancer in Madrid.

Christer Bergström is a military history writer.

ULLSTEIN/GETTY

Skorzeny is thought to have been a key figure in the secret ODESSA network that helped Nazis escape justice after the war.

Assassinations in Tehran

★ In autumn 1943, German agents learned that Allied leaders Winston Churchill, Franklin D Roosevelt and Joseph Stalin were planning a summit.

They were to meet in the Iranian capital, Tehran, in November. Skorzeny was instructed to carry out an assassination attempt against the so-called Big Three, so he secretly entered the country, which was occupied by the Allies. However, Soviet agent Gevork Vartanian received intelligence about the plan. Thanks to him, the Allies were able to take security measures that forced the Germans to cancel the operation.

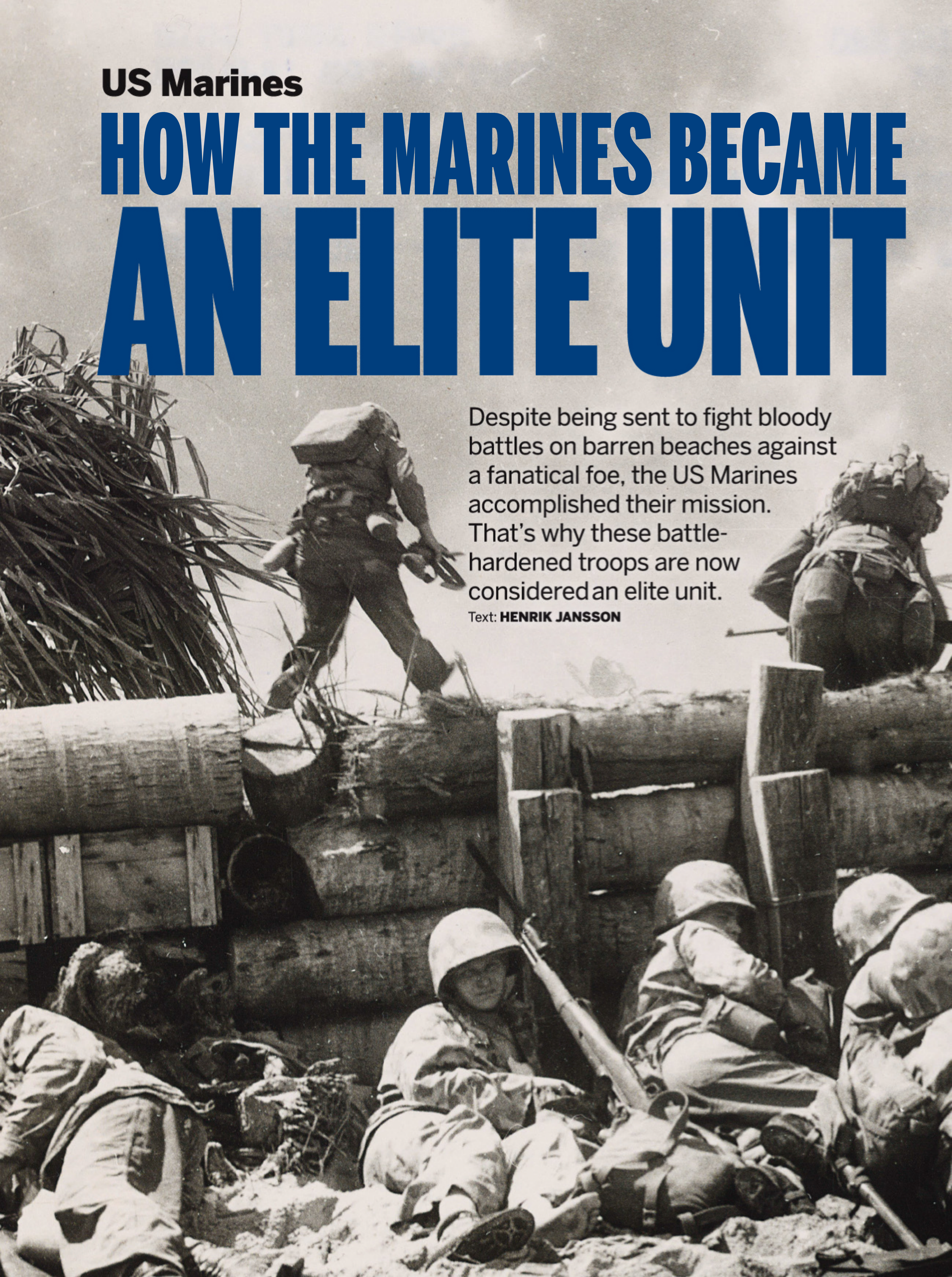
Skorzeny returned to Germany, where new missions awaited.

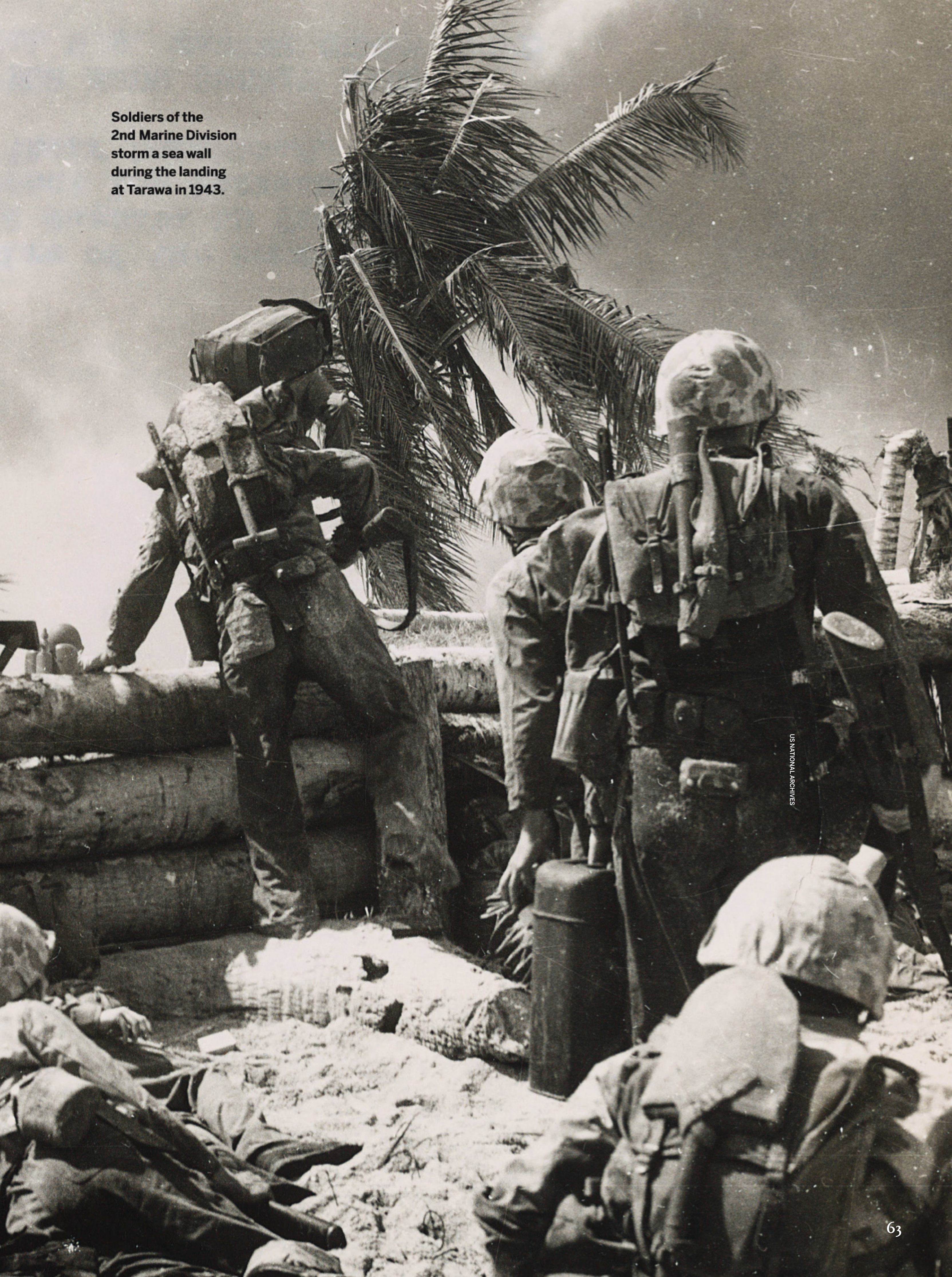
US Marines

HOW THE MARINES BECAME AN ELITE UNIT

Despite being sent to fight bloody battles on barren beaches against a fanatical foe, the US Marines accomplished their mission. That's why these battle-hardened troops are now considered an elite unit.

Text: **HENRIK JANSSON**




Soldiers of the 2nd Marine Division storm a sea wall during the landing at Tarawa in 1943.

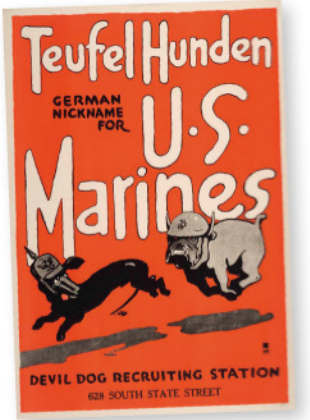
US NATIONAL ARCHIVES

What makes a unit elite? Many would answer that it must undertake special missions and have a tough selection process that singles out troops who are extremely competent, with the ability to endure incredible hardship. Some might say that elite units are those that are equipped with specialised, unusual or high-tech kit. But it is not the equipment, the selection process or numbers on a piece of paper that make an elite soldier. Many supposedly ordinary units, especially those engaged in brutal battles, endure unbelievably difficult situations and still achieve their goal.

It could also be argued that a unit's elite status comes from carrying on relentlessly, sometimes with substandard or even no equipment, in harsh environments and against fanatical enemies who never give up. In short, being thrown into fierce combat but still accomplishing a mission can make a force elite. One of the groups that deserve to be described as elite, even though it does not fit the usual definition, is the US Marine Corps.

THE MARINE CORPS' history dates back to 10th November 1775, when the US Second Continental Congress set up the Continental Marines. It was deployed the following March under Captain Samuel Nicholas, who stormed the beaches around New Providence in the Bahamas with 250 men. They subsequently fought in numerous operations in the Caribbean, the Falklands, Sumatra and during the war with Mexico. It was during this period that the marines earned their nickname, Leathernecks. Each marine was given a piece of leather to fit around his neck, about 7.5 cm wide, with the purpose of raising the soldier's gaze and giving him a better posture. It was phased out with new uniform regulations in 1872, but lives on in their nickname and in the stiff collar of the dress uniform.

"THE US MARINES WERE NOW WELL ESTABLISHED AS A CAPABLE UNIT"



A recruitment poster from 1918 alludes to the nickname Devil Dogs.

IN 1918, DURING World War I, the marines participated in the war in France. The German Army broke through the Allied lines at several points and threatened Paris from a number of forward, heavily defended positions, including one in the woods outside Belleau.

THE US 2ND Infantry Division, including the 5th and 6th Marine Regiments, was tasked with capturing the woods, which they did in a ferocious battle. They were given their second nickname by the German soldiers: *Teufelshunde* (Devil Dogs). The US marines were now well established as a capable unit, but it was their next major mission that would define them.

Between December 1941 and August 1942, Japanese forces captured most of the Western Pacific, from the Aleutians in the north to New Guinea and the Solomon Islands in the south, and all of Indonesia and the Philippines to Sumatra in the west. Many small islands were occupied and installed with local garrisons and airfields. These islands were not tropical paradises but consisted mostly of sand, palm trees and mangrove swamps, with very little fresh water for drinking. It was hot and humid, and fungal infections were common. Malaria, dengue fever, typhoid and a host of other tropical diseases were rampant.

THE JAPANESE HAD a ruthless and fanatical army. As early as the early 1930s, the Japanese state was spreading the idea that it was shameful for a soldier to surrender to the enemy, and that a final doomed but glorious suicide attack was preferable. The concept came from a seventh-century Chinese proverb, which loosely translates as: "A true man would [rather] be the shattered jewel, ashamed to be the intact tile." The Japanese instilled this belief in their soldiers.

Gyokusai (shattered jewel), which came to mean honourable suicide, was the correct way for a ►

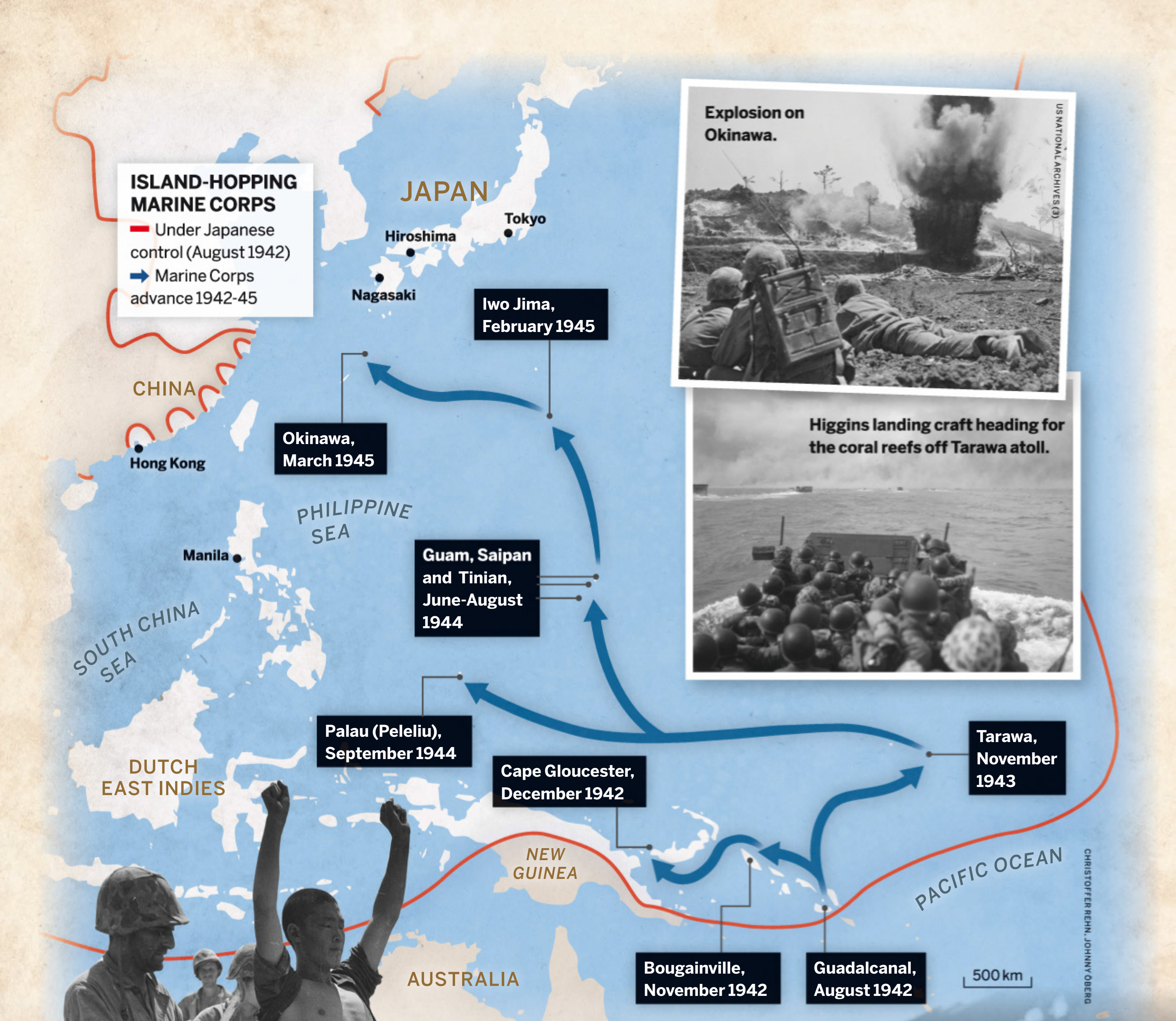
FAMOUS MARINES

John Basilone

★ John Basilone fought with D Company, 1st Battalion, 7th Marine Regiment, 1st Marine Division on Guadalcanal, commanding a machine-gun group with two water-cooled machine guns. When Henderson Field came under Japanese attack on 24th October 1942, Basilone fought continuously for three days, and when his unit had only two men left, Basilone himself repulsed the Japanese attacks, repaired his machine guns, retrieved more ammunition and held the line. For his efforts, he was awarded the Medal of Honor.

John Basilone was also awarded the Navy Cross after he was killed at Iwo Jima.

US NATIONAL ARCHIVES

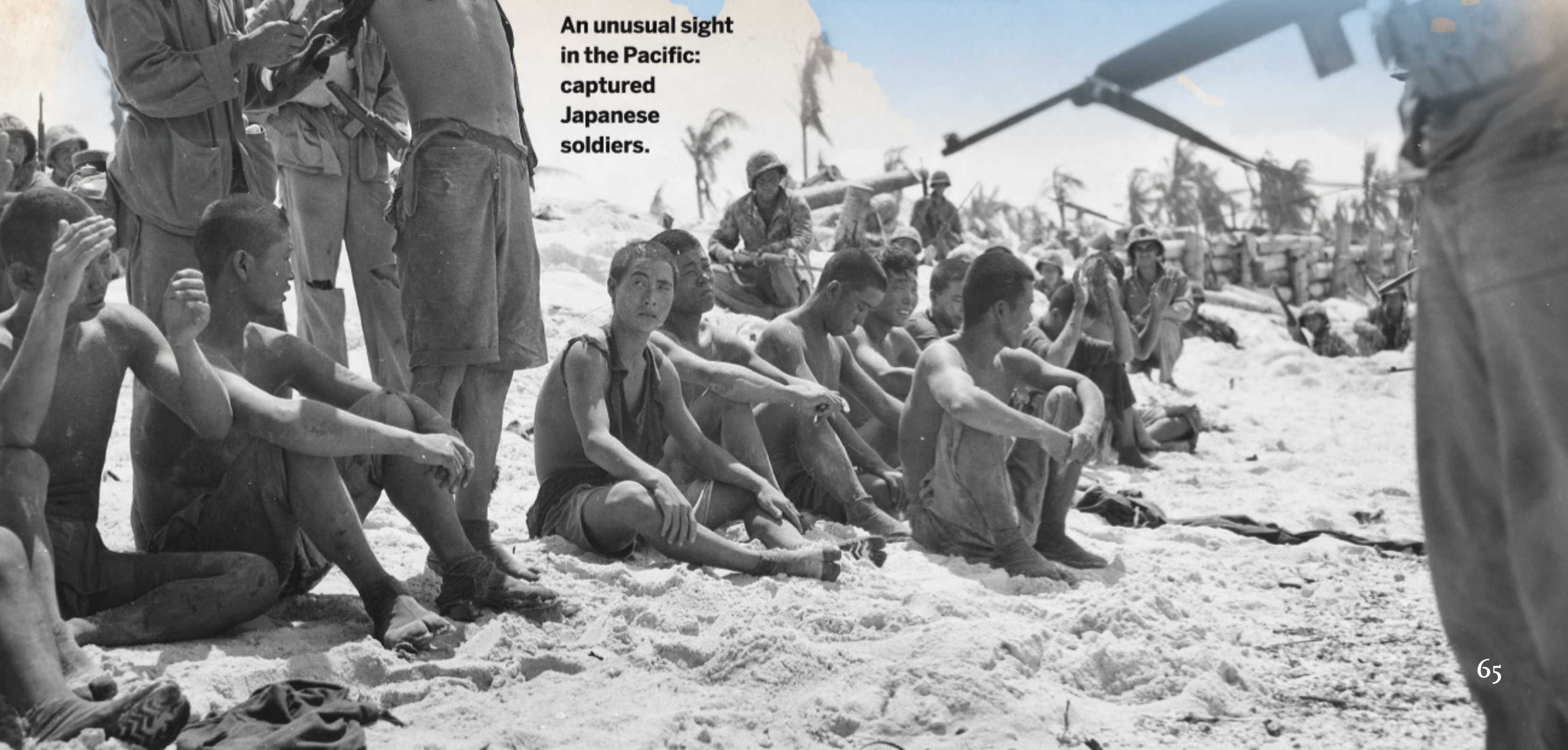

ISLAND-HOPPING MARINE CORPS
🟥 Under Japanese control (August 1942)
➡ Marine Corps advance 1942-45
JAPAN
Tokyo
Hiroshima
Nagasaki
CHINA
Hong Kong
Manila
PHILIPPINE SEA
SOUTH CHINA SEA
DUTCH EAST INDIES
NEW GUINEA
AUSTRALIA
PACIFIC OCEAN
Iwo Jima, February 1945
Okinawa, March 1945
Guam, Saipan and Tinian, June-August 1944
Palau (Peleliu), September 1944
Cape Gloucester, December 1942
Tarawa, November 1943
Bougainville, November 1942
Guadalcanal, August 1942
500 km

Explosion on Okinawa.

Higgins landing craft heading for the coral reefs off Tarawa atoll.

US NATIONAL ARCHIVES (3)

CHRISTOFFER REHN, JOHNNY OBERG



An unusual sight in the Pacific: captured Japanese soldiers.

soldier to act, rather than accepting capture and imprisonment, and the shame that brought. In 1943, the term was used in formal Japanese military documents for the first time.

THROUGHOUT THE CAMPAIGN in the Pacific, US forces took surprisingly few prisoners of war on the islands they invaded. On Tarawa, just 17 Japanese soldiers out of more than 3,600 survived, on Saipan there were 32,000 soldiers, 29,000 of whom died in battle or committed suicide, and on Iwo Jima, some 18,500 of the 21,000 defenders were killed. Only 216 were captured and nearly 3,000 managed to hide and continue fighting until the final two were captured in January 1949. A Japanese soldier simply refused to surrender and continued fighting to the last.

Of the ground soldiers deployed by the Imperial Japanese Army during World War II, 24 percent were killed. The corresponding figure for the marines was 3.7%. These figures demonstrate that the Japanese soldiers took *gyokusai* seriously.

The scenario that the marines and other soldiers who participated in the Pacific campaign had to face, from Guadalcanal in 1942 to Okinawa in 1945, was particularly harsh, with an inhospitable environment and an enemy that never relented. This was on top of the fact that the strategic rationale for capturing certain islands was not always entirely clear, and that all the landings were amphibious.

On the islands, the marines were met by battle-hardened Japanese soldiers who had spent years building defensive lines and bunkers, laying mines

“THE JAPANESE POURED A STORM OF HOT METAL DOWN ON THE ATTACKING AMERICANS”

Soldiers crawl on to the beach after their landing craft is hit by a shell off Saipan. In the background is an LVT(A)-2 Water Buffalo.

US NATIONAL ARCHIVES

and spreading barbed wire. There was little or no cover on the flat sandy beaches and tanks were difficult to get ashore and operate in the loose sand. The coasts and lagoons were already set up with Japanese artillery and mortars, which poured a storm of hot metal down on the attacking Americans.

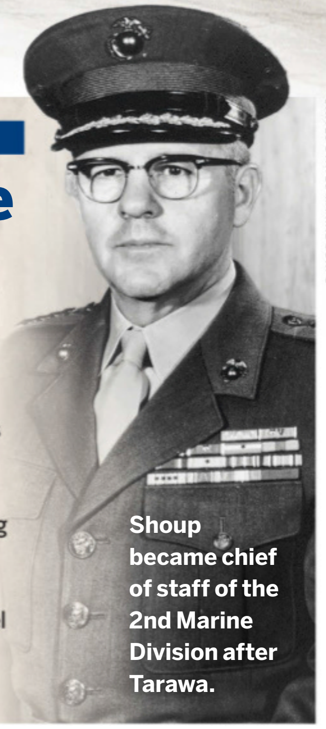
US casualty figures for ground combatants are counted in the number of wounded, killed and missing soldiers per 1,000 participants per day. For the European battlefield, this figure was 2.16 men with 0.36 dead. For the Pacific it was 7.45 men with 1.78 dead – about 3.5 times higher. Keeping going in such conditions, while seeing a large number of their comrades fall to enemy fire or because of the inhospitable environment, demanded a lot from the soldiers – more so when the strategic decision to attack the islands was so questionable.

The marines fought side by side with US army units in a campaign of constant island-hopping through the South West Pacific, beginning in ▶

FAMOUS MARINES

David Monroe Shoup

★ Colonel David Monroe Shoup participated with the 2nd Marine Regiment of the 2nd Marine Division in the invasion of Tarawa. Shoup had been wounded by shrapnel in his legs and hit by a bullet in the neck while making his way ashore. Despite his battle wounds, he rallied the surviving marines and led them non-stop for the next two days in fierce fighting against the waiting Japanese. Colonel Shoup received the Medal of Honor for his bravery on Tarawa.



Shoup became chief of staff of the 2nd Marine Division after Tarawa.

UNITED STATES MARINE CORPS

1942, until the summer of 1945, when they reached Okinawa. Many of their battles were to prove very costly indeed.

IN THE SUMMER OF 1942, the Battle of the Coral Sea and the Battle of Midway took place, two naval battles that both ended in victory for the Allies. By this time, the Japanese had established a base on the island of Guadalcanal, with an airfield on which they planned to station about 100 bombers and fighters. This led to the strategic decision by the Americans to invade the island. The 1st Marine Division was tasked with the mission and on the morning of 7th August 1942, Operation Watchtower was launched, with a total of 18,700 marines landing on Guadalcanal and nearby islands. In the fighting that followed, the US Navy was forced to withdraw, leaving 11,000 marines stranded.

Defences were set up around the airfield known as Henderson Field and they were constantly attacked by the Japanese Army during the autumn and Christmas of 1942. It was only in February 1943 that the Japanese, despite strenuous attempts to retake the island, evacuated their last troops. A total of 7,000 US soldiers died on Guadalcanal and over 8,000 were wounded, while 20,000 Japanese were killed.

Guadalcanal was the first proper operation for the US Marine Corps. The equipment assigned to the soldiers in terms of weapons were old M1903 Springfield repeating rifles, water-cooled machine guns from 1917 and Reising submachine guns. They weren't bad weapons, but they were outdated.

"THE MARINES SUFFERED HEAVY CASUALTIES WHILE STILL IN THE WATER"

SHUTTERSTOCK

Ka-Bar, the Marine Corps' famous close combat knife, came into use in 1943.

To secure airbases from which the US could strike both Japan and the Philippines, they would have to capture a number of islands. This required the elimination of the Japanese garrison on the nearby atoll of Tarawa in the Gilbert Islands during Operation Galvanic.

THE MISSION TO TAKE Tarawa was given to the 2nd Marine Division and 18,000 marines prepared to capture the atoll. On land, 4,600 Japanese waited behind their defences. During the morning of 20th November 1943, Higgins landing craft and amphibious tractor vehicles approached the beach. But all did not go as planned, mainly because of two crucial factors that came to epitomise the Battle of Tarawa.

Firstly, the Americans misjudged the tide, and instead of the sea lifting the boats up and over the coral, the marines had to contend with a neap – or lower – tide, which meant that the only craft that could cross the reefs were the amphibious tractor vehicles. The soldiers in the Higgins boats were forced to wade ashore.

The other aspect that came into play was that the Japanese defenders had focused their defences on the beaches. As a result, the marines suffered heavy casualties while they were still in the water approaching the shore. During the first day's fighting, half of the deployed Alligator amphibious vehicles were knocked out.

OF THE 12,000 MARINES who made it ashore on Tarawa, 1,000 were killed and another 2,000 were wounded. The Japanese, some 3,600 soldiers, defended themselves to the last and only 17 survived. On the third day, 300 Japanese soldiers attacked the US lines in a suicide assault and were all struck down.

The invasion of the volcanic island of Iwo Jima was to be the most iconic of the amphibious operations conducted by the marines in the Pacific. Located halfway between Japan and the airbases in the Marianas, it was a key strategic target for the US air campaign against Japan. The landing was dubbed Operation Detachment and the task fell to the 3rd, 4th and 5th Marine Divisions, which landed from two directions with 70,000 men. The defenders numbered about 21,000 men and

FAMOUS MARINES

Hershel Williams

★ Hershel Williams landed with C Company, 1st Battalion, 21st Marine Regiment of the 3rd Marine Division on Iwo Jima. On 23rd November, he was assigned a flamethrower and tasked with taking out a network of concrete pillboxes. During the attack, his unit was mowed down by relentless machine-gun fire until he was the only man left.

When Williams finally reached the first pillbox, he pushed the flamethrower into the opening and fired. He then returned to his own lines no fewer than five times, refuelling or replacing his flamethrower and taking out a total of seven pillboxes. Williams was awarded the Medal of Honor for actions. Born in 1923, he is now 98 years old.

US NATIONAL ARCHIVES

Hershel Williams as a corporal with his medal in 1945.

US NATIONAL ARCHIVES

they had spent a long time preparing to protect the island by digging a large number of defences, excavating tunnels through the mountains and laying mines, barbed wire and the like against the attacking enemy.

AT 09.00 ON 19TH FEBRUARY, the marines landed on Iwo Jima , and at once discovered that the island's beaches were made of loose volcanic sand. This made it difficult to dig shelters and the tracked vehicles were unable to travel very far. The Japanese waited until the beaches were packed with marines and then opened a deadly barrage at 10.00. What followed was the bloodiest battle the marines had fought so far in the Pacific War. The defenders fired from all sorts of defensive structures and when defeated, they were able to use their tunnels to bring in replacements and open fire from the rear after the US units had passed by.

Mount Suribachi was a veritable hornet's nest, filled with gun emplacements firing at the beaches. Some marine battalions ended up with only a fifth of their soldiers fit for action. It soon became obvious that the only effective weapons against the Japanese fortifications were grenades, flamethrowers and the anti-aircraft tanks that had made it ashore.

John Basilone, who received the Medal of Honor for his actions on Guadalcanal, fought on Iwo Jima with the 5th Marine Division and was killed on 19th February. He was posthumously awarded the Navy Cross, becoming the only soldier to receive both the Medal of Honor and the Navy Cross. Twenty-two marines received the Medal of Honor for their actions on Iwo Jima, 12 of them posthumously.

A month after the invasion, Iwo Jima was captured by the US, although a large number of Japanese soldiers remained on the island – some of whom did not surrender until 1949. Eighteen ►

“SOME BATTALIONS ENDED UP WITH ONLY A FIFTH OF THEIR SOLDIERS FIT FOR ACTION”

The all-too-familiar image of wounded marines in the volcanic sand of Iwo Jima.

thousand Japanese soldiers died on the island, nearly 7,000 marines were killed and another 20,000 were wounded.

ON 26TH MARCH, Operation Iceberg began with the newly formed Tenth Army, including the 1st, 2nd and 6th Marine Divisions, landing on the Japanese island of Okinawa. It was the first time the US had reached Japanese soil and fighting ensued.

The Japanese army had fully embraced the tactics of kamikaze and gyokusai, and the US forces had to fight extremely hard for every metre of Okinawa. Eighty-eight thousand marines and another 100,000 US soldiers landed and were met by some 76,000 Japanese soldiers and 40,000 conscripts from Okinawa, including 1,800 schoolboys.

By the time Okinawa was captured in July 1945, 20,000 Americans had been killed and 60,000 wounded. On the island, even the marines suffered more battle fatigue than usual, probably due to the constant artillery fire and the large numbers of wounded and killed.

Japan lost a total of 110,000 soldiers, while 2,000 Japanese schoolchildren were also killed during the fighting. A not insignificant number of the fallen soldiers died as a result of gyokusai. However, it was the first time that Japanese soldiers surrendered on a large scale: a total of 10,000 Japanese soldiers laid down their arms on the island of Okinawa. Still, it was one of the bloodiest battles of the Pacific War and provided a nasty foreshadowing of what awaited if a full-scale invasion of Japanese territory became necessary.

THE YOUNG US MEN who fought in the Pacific, both from the marines and the US army, probably endured some of the most bitter fighting of World War II. Eighty-two Medals of Honor

UNIVERSAL IMAGES GROUP/GETTY

“JAPAN LOST A TOTAL OF110,000 SOLDIERS”

were awarded to marines during the war, many of them posthumously.

The crucible into which the marines were thrown shaped the modern Marine Corps, and also set the standard for future wars in Korea and Vietnam. The term “elite forces” is often used – and not always correctly. Being described as an elite unit is not something that is achieved by statistics or how hard you train; it is justified by what the unit does in the field. In the case of the marines, it was the amphibious campaign through the Pacific that earned them the name Devil Dogs.

Henrik Jansson is a military history writer.

Further reading: Strong Men Armed – The United States Marines Against Japan (1997) by Robert Leckie.

Colt M1911 used in fighting on Iwo Jima.

Marines raise the flag on Mount Suribachi after the victory on Iwo Jima.

Combat engineers

TECH ON THE BATTLEFIELD

Specialist regiments constructed bridges, blew up bunkers, built airfields and frequently fought on the front line. But despite being one of World War II's most important military branches, combat engineers are often overlooked by historians.

Text: **CHRISTER BERGSTRÖM**

By dawn on 18th December 1944, the mighty SS-Kampfgruppe Peiper had driven a 40-kilometre spearhead through the US front in the Ardennes. It was only two days since Hitler had caught the Allies completely unawares when he launched the Ardennes Offensive, and in those 48 hours the entire landscape of the war had been turned upside down. In the section of the front that had been breached, three US infantry divisions had been virtually wiped out.

During their merciless march, SS soldiers had mowed down US prisoners of war and slaughtered Belgian civilians. Ahead of the German armoured divisions, soldiers and civilians fled in panic.

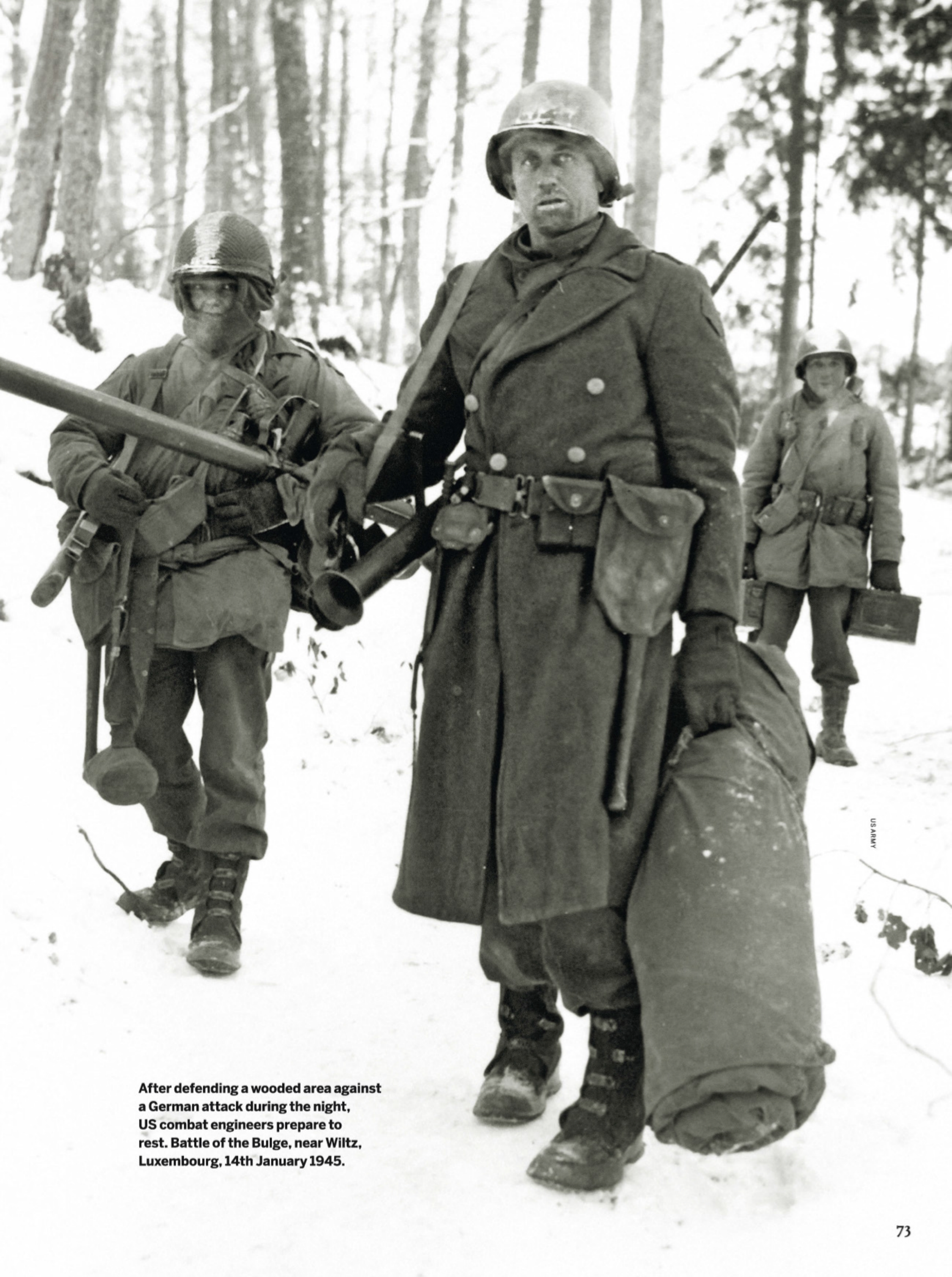
SS-Obersturmbannführer (Lieutenant Colonel) Jochen Peiper commanded a formidable battle force of 124 tanks, including Panther tanks that were far superior to anything the Allies could muster, as well as several of Germany's giant Tiger II heavy tanks.

On the morning of 18th December, the leading Panther tanks suddenly appeared around a bend in the road as it wound around a mountain. Just 1,000 metres ahead lay the confluence of the Salm and Amblève rivers, over which the main N23 road crossed via a bridge. They planned to drive straight

THREE LIONS/GETTY

One of the engineers' many roles: blowing up bridges. This undated photo shows a bridge somewhere in France.

> **"THE 291ST BATTALION HAD MANAGED TO BRING A SMALL FORCE OF 12 MEN TO THE BRIDGE AT HÂBIÈMONT"**



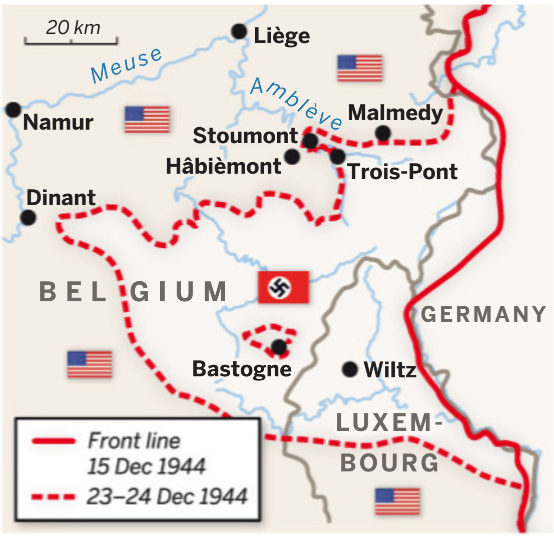
After defending a wooded area against a German attack during the night, US combat engineers prepare to rest. Battle of the Bulge, near Wiltz, Luxembourg, 14th January 1945.

US ARMY

almedy 13 km
St. Vith 8

INTERFOTO/IBL

17th December 1944. German SS soldiers study a map 13 kilometres from Malmedy, on the day of the massacre.



CHRISTOFFER REHN

The Ardennes Offensive took place from 16th December 1944 to 16th January 1945.

▶ across, continue to the Meuse River and then on to Antwerp to surround an entire Allied army group.

US Colonel Gilbert L Meyers did not exaggerate when he reported, “There is now nothing between them and the English Channel but service troops, cooks and bakers!”

In the Eagle’s Nest, Hitler’s headquarters in Bavaria, the dictator must have been rubbing his hands in glee. Would the war finally turn?

BUNDESARCHIV IMAGE 183-R65485

SS-Obersturmbannführer (Lieutenant Colonel) Jochen Peiper.

A SINGLE US anti-tank gun stood between the German tanks and the huge bridge. It should be a formality for the SS tank to sweep away this almost ridiculous resistance. But just then a terrible explosion was heard. Further ahead, the great road and rail bridge south of Trois-Ponts collapsed with a crash into the river.

A handful of men in the US 291st Engineer Combat Battalion had succeeded in their task at the last possible moment. The Germans swore, but there was no way they could cross the river.

“If we had captured the bridge at Trois Ponts intact and had had enough fuel, it would have been a simple matter to drive through to the Meuse River early that day,” said a frustrated Peiper. Now the mighty SS force would instead have to take a major detour around the mountain that forces the Amblève River to bend north and then west. Around 13.00, the tanks thundered at full speed through the small village of La Gleize and continued down the hill towards the bridge over the Amblève. They took the bridge and continued south-west.

The next bridge lay eight kilometres away, crossing the river Lienne at the small village of Hâbièmont. There, Peiper aimed to rejoin the main N23 road, west of Trois-Ponts. But a new obstacle appeared in the form of four US fighter-bombers.

These attacked continuously for the rest of the afternoon, forcing the German force to take cover.

By the time the German advance could resume at dusk, the 291st Engineer Combat Battalion had managed to bring a small force of 12 men to the bridge at Hâbièmont. The scene was a repeat of Trois-Ponts. US Corporal Fred Chapin turned the key to the detonator just as he saw a German tank emerge from the gloom 200 yards down the road.

ACCORDING TO ONE popular account, Peiper sank down and hammered his fist in frustration against one knee, swearing, “Those damned engineers! Those damned engineers!”

The time gained allowed the US to move troops into the area where the Nazis had broken through. Two days later, SS-Kampfgruppe Peiper was met by three full US divisions – a considerably different prospect to the “service troops, cooks and bakers” that would otherwise have stood in their way. This was also the beginning of the end for Jochen Peiper’s brutal fighting force. SS-Kampfgruppe soon found itself surrounded in La Gleize, cut off thanks to bridges to their east, west and south being blown up by combat engineers. On the night of Christmas Eve, Peiper and 800 of his men broke out and made their way on foot back to German lines. They left behind all their heavy equipment – it was an enormous war booty for the Americans.

UNDOUBTEDLY, US ENGINEERS – not least from the 291st Engineer Combat Battalion – played a crucial role in halting the Germans’ Ardennes Offensive in late 1944. On the eve of those crucial bridge explosions, soldiers from the 291st were the first to encounter and care for survivors of the Malmedy Massacre, in which SS soldiers murdered

82 US PoWs. The battalion commander, Lieutenant Colonel David E Pergrin, only 26 years old, was the first to report on this now-infamous massacre.

Three months later, the 291st played another key role, this time in the Allied offensive across the Rhine. Although the Americans had captured a bridge at Remagen, it was in poor condition and threatened to collapse – which it did a few days later. But defying German artillery fire from the eastern side of the river, Pergrin's men constructed a 335-metre-long pontoon bridge – the longest ever built under enemy fire. This allowed the Allied advance to continue, even after the Ludendorff Bridge had collapsed into the river.

On 18th April 1945, surviving German forces in the encircled Ruhr area surrendered. 325,000 men went into US captivity. Their commander, Field Marshal Walter Model, who'd led the Ardennes Offensive, went into a forest and shot himself.

WARFARE IS NOT just about shooting to kill or wound the enemy. Successful military operations require many other outcomes. These include removing natural obstacles, constructing or repairing bridges, clearing mines and blowing up enemy bunkers as the forces advance. On the defensive side, bridges must be destroyed ahead of the enemy's arrival, trees cut down to block his path, mines laid, bunkers built and trenches dug.

All of these tasks require technical know-how – expertise that is pooled in specialist engineering units. Despite their important role, however, these troops have often been overlooked by historians.

Yet skilled men have always been used on the battlefield to carry out construction, blasting and repairs. The earliest known term for these men was the French word *génie* (from the Latin for 'genius'). The terms sappers or miners were also used. Sappers – from the French word *sappe* (spadework or trench) – were responsible for building defensive positions during sieges of enemy castles. The miners' task was originally to dig tunnels under the enemy castles – hence their name, which means 'to dig in

"CHAPIN TURNED THE KEY TO THE DETONATOR JUST AS HE SAW A GERMAN TANK EMERGE FROM THE GLOOM"

A Sherman tank drives slowly up a pontoon bridge built by US engineers.

FPG/ARCHIVE PHOTOS/GETTY

“PIONEER SOLDIERS ENJOYED A HIGH STATUS FOR THEIR ENGINEERING SKILLS”

The US 130th Engineer Brigade’s insignia includes a spade.

▸ the earth’ in French. From the 16th century, their tasks also included the deployment of land mines, a new invention.

IN THE 17TH century, a new collective term – pioneer – emerged, a word whose origins lay in the French word *pionnier* (foot soldier). Despite originally referring to ordinary conscripted foot soldiers, pioneer soldiers enjoyed a particularly high status for their engineering and construction skills. The first engineer officers’ school was established in France in 1668. By the end of the 18th century, every infantry or cavalry regiment in the British army had three or four pioneers, equipped with shovels, axes, picks and saws.

Napoleon had a special engineering corps created in 1793, and it was quickly followed by others. In 1812, as a result of its experiences fighting Napoleon in the Peninsular War (1808-1814), Britain formed the Royal School of Military Engineering to train officers and men alike.

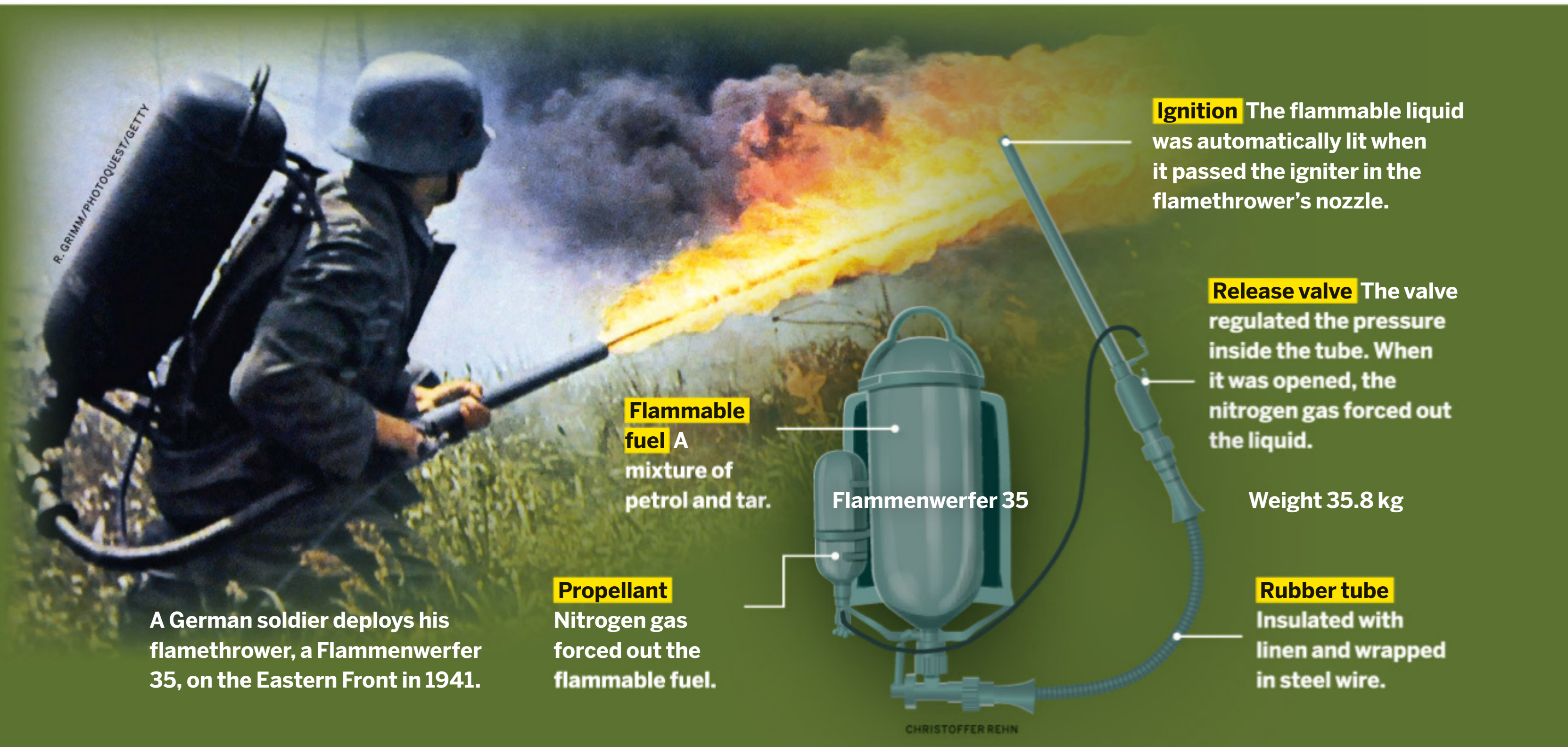
In World War I’s static trenches on the Western Front, the importance of the engineering troops – or pioneers as they were sometimes still known – became even greater. The demand for better, deeper and more permanent trenches helped develop combat engineer skills further.

The use of flamethrowers – a new weapon in trench warfare – was also given to the more technically proficient pioneers. It was therefore logical that flamethrower-wielding pioneers would be added to German ‘stormtrooper’ units, whose role was to punch holes in the enemy’s defences for the infantry to follow through. Thus combat engineers evolved from ‘engineers in unform’ into a unit that also had a combat role that saw them enter the front line.

DURING THE INTERWAR period, engineering troops developed mainly in two countries: the Soviet Union and Germany. In the early 1930s, the Soviet Union was the first to set up regular paratroop units. These included airborne engineer troops whose task was to land first to prepare runways. The Germans copied the paratrooper concept in 1935 but didn’t form their own parachute pioneer battalions until early 1940. On the other hand, they took things a step further.

On the morning of 10th May 1940, 85 German paratroopers landed by glider on top of the Belgians’ giant Eben-Emael fort south of Maastricht, using 50-kg explosive charges to force the 650-strong garrison to surrender, thus opening the way for German tanks to continue their western Blitzkrieg.

Meanwhile, German pioneer stormtroopers crossed the border rivers Our and Sûre in rubber assault dinghies and captured Belgian border posts so that the panzer troops could begin their advance



R. GRIMM/PHOTOQUEST/GETTY

A German soldier deploys his flamethrower, a Flammenwerfer 35, on the Eastern Front in 1941.

Ignition The flammable liquid was automatically lit when it passed the igniter in the flamethrower’s nozzle.

Release valve The valve regulated the pressure inside the tube. When it was opened, the nitrogen gas forced out the liquid.

Flammable fuel A mixture of petrol and tar.

Flammenwerfer 35

Weight 35.8 kg

Propellant Nitrogen gas forced out the flammable fuel.

Rubber tube Insulated with linen and wrapped in steel wire.

CHRISTOFFER REHN

undisturbed. The engineer troops then supported the continued advance by building pontoon bridges across rivers, clearing mines and roadblocks, and attacking enemy bunkers with flamethrowers and explosive charges. They often also took part in regular infantry combat.

ON 12TH MAY 1940, the 10th Panzer Division reached the Meuse River near the town of Sedan. On the German side of the river was a wide open field; on the other side, the French enjoyed a strong defensive position from their fortifications on top of a hill. All the bridges had been destroyed. Crossing the river looked an impossible task.

At this point, a small force from the 49th Panzer Engineer Battalion under Sergeant Walter Rubarth stormed across the field, towing three rubber assault dinghies. They were met by a furious barrage of fire that sank one of the boats and the men around it.

But 11 men in two boats managed to cross the river. They crawled up the grassy slope while French fire continued to rain down on them. Of the 11 men who crossed the river, only four pioneers were left when the Germans managed to attach directed energy explosive charges to the nearest French bunker. The explosion was devastating.

Through the efforts of the combat engineers, combined with the attacks of swarms of Stuka destroyers, the Germans managed to cross the Meuse at Sedan. The entire French defence collapsed. Eight days later, the Germans had reached the English Channel, having surrounded an Allied force of hundreds of thousands of men on the coast around Dunkirk.

EARLIER THAT YEAR, Soviet engineers had blasted the Red Army right through the Finnish Mannerheim Line on the Karelian Isthmus. At the start of the Winter War, the Russians suffered bloody casualties when they carried out frenzied frontal attacks on the Finnish bunkers. But then they rolled heavy KV tanks towards the bunkers. These dragged sleds of explosives behind them, and white-clad Soviet engineers were alighting in the wake of the caterpillar tracks. One by one the Finnish bunkers were blown up. This was the decisive moment in the Finnish Winter War, which ended on 13th March 1940.

IN APRIL 1941, when the Germans invaded Greece, pioneer forces again played a key role. On ►

85 German paratroopers landed in gliders on top of the Belgian fort at Eben-Emael on 10th May 1940.

A feared engineering weapon

★ Flamethrowers were a WWI German invention. At the start of WWII, German pioneers used the Flammenwerfer 35 (FmW 35), which shot a 25-metre stream of fire that burned for ten seconds.

WWII Soviet ROKS-2 flamethrowers had a range of more than 45 metres with a burn time of 6-8 seconds.

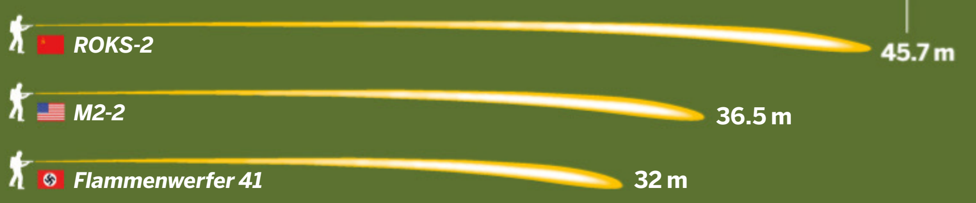
The British had a portable flamethrower, but usually favoured the use of a modified Churchill tank, which could spray fire up to 140 metres away using a Crocodile attachment.

In 1941, the US Army had no flamethrower of its own, but the M2-2, which entered service in 1943, became one of the marines' most widely used weapons against Japanese bunkers.

Flamethrowers were particularly despised by those who faced them because of the horrific death they could inflict on opponents. It was more the rule than the exception that captured soldiers wielding flamethrowers were killed, and they were a favourite target for snipers. That's why Red Army troops camouflaged their ROKS-2 to closely resemble an ordinary infantry rifle. The Germans did the same with their follow-up flamethrower, the FmW 41.

Several attempts have been made to introduce an international ban on flamethrowers, so far without success.

Soviet Roks-2.



▶ 24th April, the Greek government surrendered under pressure from the superior invasion force. The British immediately began to evacuate their expeditionary force, and 50,000 men escaped. But 12,000 men and almost all their heavy equipment were left behind. This was largely due to the operation carried out by German paratroopers and pioneer troops who landed on 26th April at the great bridge over the Corinth Canal between the Greek mainland and the Peloponnese peninsula.

Within a few minutes, the airborne force managed to capture both ends of the bridge, cutting off one of the main British retreat routes. At a cost of 79 killed or missing and 158 wounded, this German force took over 2,000 prisoners of war.

SOME OF THE first German soldiers to cross the border into the Soviet Union during Hitler's invasion on 22nd June 1941 were combat engineers. They traversed border rivers in rubber boats at dawn, overpowered Soviet border guards, took out bunkers with explosive charges and flamethrowers, and quickly built pontoon bridges for the panzer and infantry forces that followed.

At the same time, the Soviet engineering forces, after years of bloody purges by Stalin, were in a deplorable state. They looked good on paper: the Soviet engineering forces were divided into branches of the armed forces, and each army and military district had its own engineering units. In addition, the high command had engineering forces in reserve. But the reality was that they were often led by less competent officers and the level of training left much to be desired.

In addition, in June 1941 almost all the engineering units in the west were behind the front building defensive installations along the Stalin Line. It meant that Soviet troops facing the German invasion had to fight without the support of either engineering troops or their equipment. When German bombers destroyed bridges to the rear of the Soviet armies, hundreds of thousands of troops were cut off ▶

US soldiers from the 39th Combat Engineer Regiment study a tank trap at the Futa Pass in Italy in 1944.

PHOTOQUEST/GETTY

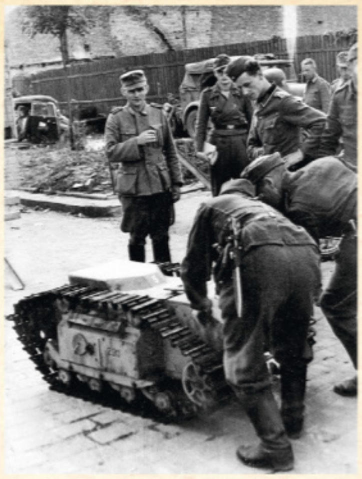
FACTS ★ Goliath

Beetle tank carried deadly cargo

The Goliath was a German mini-tank produced from 1942 on. It could be remotely guided to enemy lines before detonating an explosive charge.

Goliath – nicknamed "Beetle tank" by the Allies – was based on a French design that fell into German hands in June 1940. A total of 7,564 were produced, most of which were deployed on the Eastern Front.

The Goliath was operated by a combat engineer, who steered it using a control box connected to the tank by a 650-metre cable containing three wires. Two wires controlled the tank, while the third detonated it.



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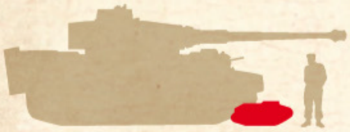
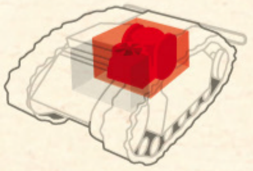
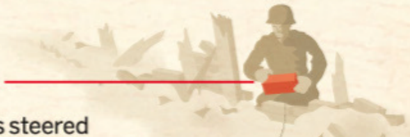
German soldiers with a Goliath during the 1944 Warsaw Uprising.



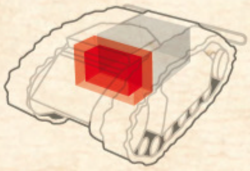
Goliath compared to Tiger.



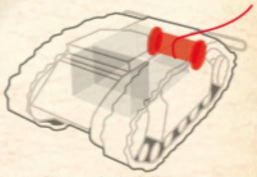
Engine 12.5-hp petrol-powered Zündapp SZ7. Replaced the electric engine (in version 302) as it was cheaper and easier to repair.



Control Goliath was steered and detonated via a control box.



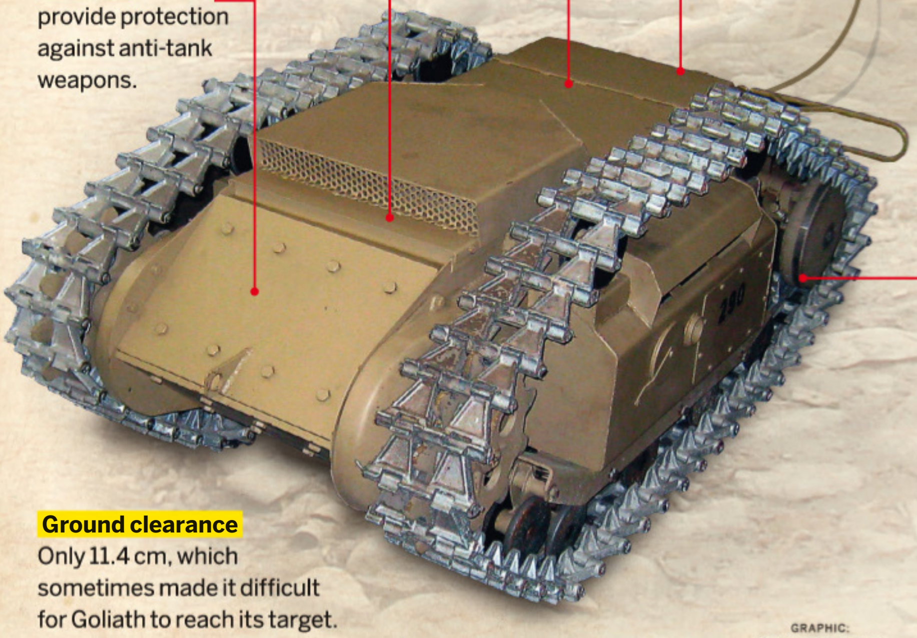
Explosive charge 60-100 kg. Located in the front of the tank and detonated by the operator.

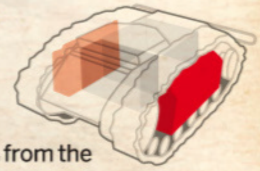


Cable 650 metres long. Initially coiled around a cable in the rear, it was sometimes hijacked by the enemy, making Goliath impossible to control.

Petrol tank Six-litre capacity provided a range of up to 6 km.

Armour Too thin to provide protection against anti-tank weapons.





Side panel Housed two batteries and controllers that received signals from the control box.

Ground clearance Only 11.4 cm, which sometimes made it difficult for Goliath to reach its target.

GRAPHIC: CHRISTOFFER REHN

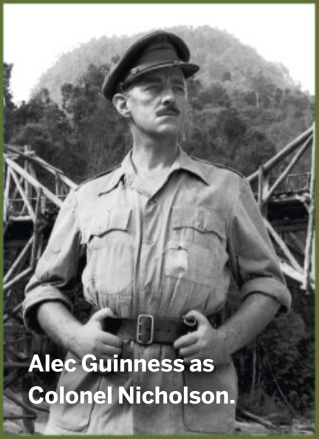
GOLIATH

Three versions: 302, 303a and b

Model:	**302**	**303b**
Speed:	9 km/h	9 km/h
Height:	0.56 m	0.62 m
Length:	1.5 m	1.69 m
Width:	0.85 m	0.91 m
Weight:	370 kg	460 kg
Armour:	5 mm	10 mm
Engine:	Electric	Petrol

Bridge over the River Kwai

Classic war film lied about Japanese engineering


Alec Guinness as Colonel Nicholson.

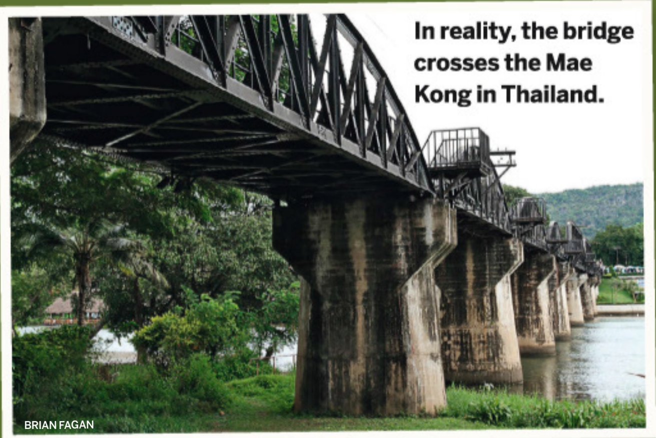
COLUMBIA TRISTAR/GETTY

★ The 1957 film *Bridge on the River Kwai*, starring Alec Guinness and William Holden, is one of the great war film classics. Unfortunately, the film bears little resemblance to reality. One of its main plot points revolves around incompetent Japanese engineers. According to the film, the site on which they chose to build the bridge was too weak to support it. However, thanks to the treachery of the Allied PoWs' top commanders, who advised the Japanese to move the bridge to another site, construction was completed. It was then blown up by a commando force just as a Japanese troop train crossed.

In fact, the Japanese engineers who planned and led the construction had graduated with the highest honours from some of the world's finest engineering schools, including US and British universities. Aside from the enormous human suffering associated with this railway line and its bridges, it was itself a true engineering masterpiece. Parts of the railway are still in use today.

The reality is that the highest-ranking Allied POW commander, Lieutenant Colonel Philip Toosey, was anything but a collaborator and did everything he could to slow down the work.

Nor was the bridge blown up by any commando force. In reality, two bridges were built, one of wood and one of steel and concrete. These were in use for nearly two years until they were destroyed by an Allied aerial bombardment. The steel and concrete bridge was repaired and remains in use today.


In reality, the bridge crosses the Mae Kong in Thailand.

BRIAN FAGAN

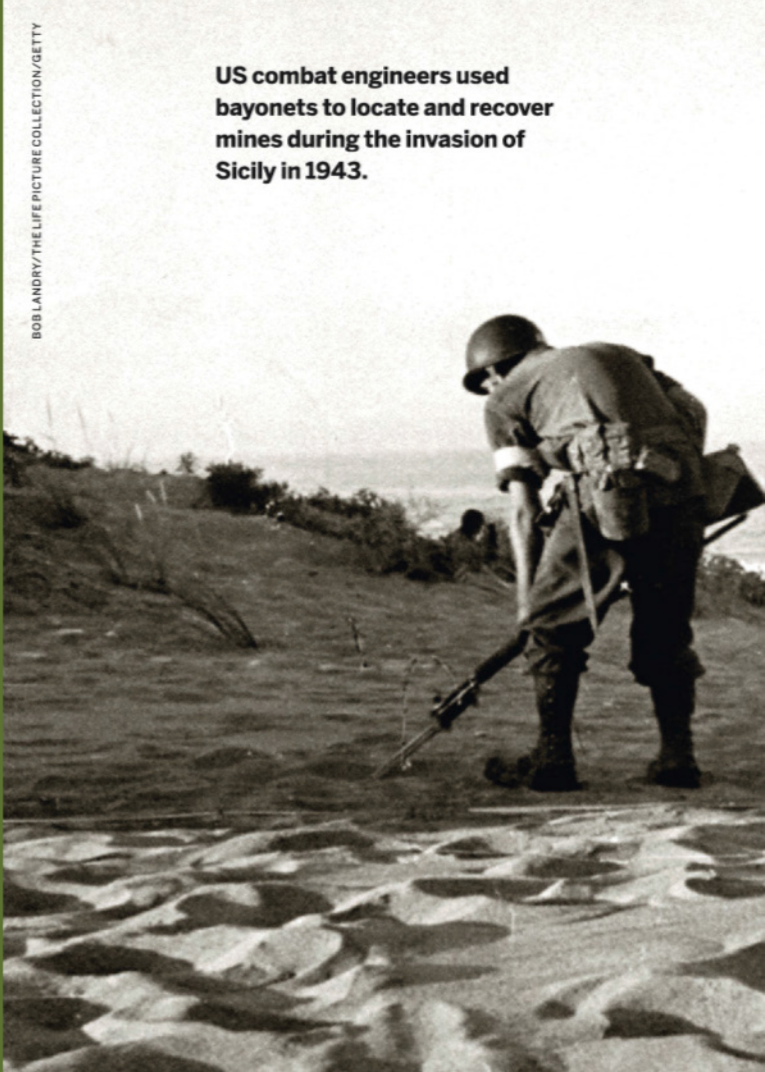
without access to maintenance supplies, never mind sufficient sapper troops and bridge-building equipment.

The Red Army's combat engineers did not play a major role in the defensive battle against the German invasion of the Soviet Union until October 1941, when they were reorganised into huge sapper armies and deployed to build new defensive lines near Moscow. By January 1942 there were ten such armies. These consisted mainly of hastily mobilised men and women digging anti-tank trenches.

In February 1942, when the Battle of Moscow had ended in a Soviet victory, five sapper armies were disbanded and the others were eventually divided into assault engineering brigades.

COMBAT ENGINEERS ALSO played a significant role in the Japanese armed forces during World War II. In the various landings of 1941-42, naval engineer regiments with 150-200 landing craft per regiment brought the troops to land.

Among the first to go ashore on these occasions were the Imperial Japanese Navy's landing parties – specialist engineer forces that handled the unloading of the heavy equipment being transported in as well as maintenance. Next, port engineers arrived to take over the unloading, along with the job of repairing any captured ports. The


US combat engineers used bayonets to locate and recover mines during the invasion of Sicily in 1943.

BOB LANDRY/THE LIFE PICTURE COLLECTION/GETTY

4/PION.P
V.1933

Soviet engineers played a decisive role in the 1940 Winter War when they blew up bunker after bunker along the Mannerheim Line.

"JAPANESE CHIEF ENGINEER HIROSHI ABE WAS TRIED AND SENTENCED TO DEATH"

Japanese Army's infantry divisions of 20,000 men usually included an engineer regiment of 900 to 1,000 men. During the rapid advance across islands and through jungles, these regiments established airfields and floated troops across rivers.

The most infamous achievement of Japanese engineers during WWII was the construction of the 415-km-long railway line between Thailand and Burma, across some of the most impenetrable land on the planet. The notorious bridge over the River Kwai (see box) was part of this line. A quarter of a million Burmese, Malay and Javanese slave labourers, as well as 60,000 Allied prisoners of war, were forced to work on the railway in completely inhumane conditions. The work, led by Lieutenant Hiroshi Abe of the Japanese engineer troops, was characterised by enormous brutality on the part of the Japanese and indescribable hardship for the forced labourers.

On 17th October 1943 the railway was completed, and over the following months an endless series of Japanese trains carrying troops and supplies rolled into Burma. This enabled the Japanese 15th Army to begin its invasion of India in March 1944.

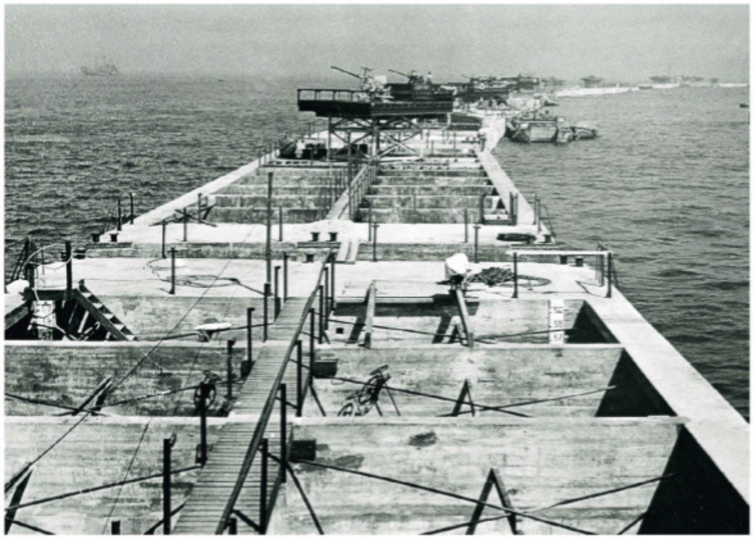
The construction of this railway line, which came to be known as the Death Railway, cost the lives of at least 90,000 Asian forced labourers and over 12,000 Allied prisoners of war. After the war, Japanese chief engineer Hiroshi Abe was tried and sentenced to death as a war criminal – a sentence later commuted to 15 years in prison.

IN BURMA, BRITISH engineers were also put to good use during the Allied counter-offensive of 1945. ►

Their building work included roads and airfields of vital importance. Earlier, British engineering troops had made a major contribution to the victory over the 'Desert Fox' Rommel in North Africa. Britain's trump card in the Desert War was its superior aircraft, but it was British engineers who managed to keep their planes fully operational during the offensive by establishing advance airfields in the desert. Over a two-month period, 14 large airfields were built, 150-300 metres wide with runways 900-1,200 metres long. On one occasion, construction work began in the morning and fighter-bombers were able to start operating from the new airfield the same afternoon.

HOWEVER, THE GREATEST achievement of the Royal Engineers during World War II was undoubtedly the construction of the two prefabricated Mulberry Harbours used in the invasion of Normandy in June 1944. Mulberry A, used at the US Omaha Beach, was destroyed in a storm after only a few days, but Mulberry B – also known as Port Winston – remained operational in the British landing section for ten months. During this period it landed 2.5 million men, 500,000 vehicles and four million tonnes of supplies.

British and US engineers were among the first wave when the Normandy landings began on the morning of 6th June 1944. These engineers carried 18 kg of explosives and barbed wire cutters in addition to the usual soldier's equipment. Some had mine detectors, others dragged rolls of 250 metres of explosive wire.

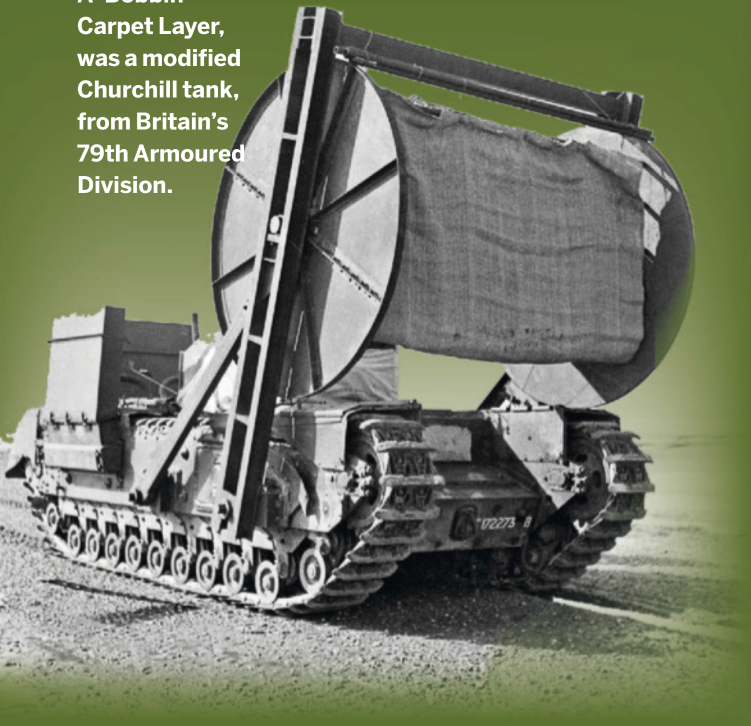


POPPERFOTO/GETTY

The Mulberry harbours were built from prefabricated parts that were shipped across the English Channel to Normandy.

With this equipment, as well as specialist vehicles such as tank dozers (tanks equipped with bulldozer blades), crabs (tanks equipped with mine flails for clearing mines) and Hobart's Funnies (see below), combat engineers tackled the difficult and dangerous task of clearing tens of thousands of German obstacles and mines from the beaches, while also blowing holes in the German bunker defences.

IN THE PACIFIC War, engineer battalions in the US Marine Corps played a similar role. Among these, the 'Seabees' – short for Construction Battalion (CB) – became particularly famous. The Seabees built



A 'Bobbin' Carpet Layer, was a modified Churchill tank, from Britain's 79th Armoured Division.

Armoured bulldozer

Churchill ARK

Odd tanks paved the way for the troops on D-Day

★ Britain's Royal Engineers used a series of modified tanks, known as Hobart's Funnies, to great effect during the invasion of Normandy. These included:

Bobbin Rolled out a three-metre wide canvas reinforced with steel poles so vehicles could cross soft ground safely.

Small Box Girder An assault bridge nine metres long that could be deployed in front of the tank in 30 seconds.

Crocodile Flamethrower tank.

Churchill ARK A turretless tank with extendable steel ramps that could be placed in, for example, an anti-tank trench so that other vehicles could drive over it.

Armoured bulldozer A bulldozer capable of operating even under enemy fire.

441 breakwaters, 111 major airfields and housing for 1.5 million men as the US advanced from one Pacific island to the next.

During the bloody island battles in the Pacific in the last 12 months of the war, the US Marines faced a new Japanese tactic, which saw the defenders fortify themselves in an attempt to inflict maximum casualties. This was first experienced on the island of Peleliu, where the Japanese entrenched themselves within the small island's many caves. Japanese engineers dug thousands of feet of passages connecting the caves together, used explosives to carve out large battle command centres inside the mountains, and also blasted away the cave entrances to make them more slanted and easier to defend while adding sliding armoured doors to close them off. The US Marines, for their part, deployed their engineers with flamethrowers, explosive charges and tank dozers to seal off the caves.

DURING THE FINAL battle of WWII, Soviet engineers played a crucial role. In the run-up to the final assault on Berlin, between 17 and 22 Soviet engineer companies were deployed along every kilometre of the front. By the time the offensive began on 16th April 1945, they'd cleared 70,000 mines and punched 340 holes in German defences for the attacking forces to push through. They then attacked German bunkers with flamethrowers and explosive charges. As the Red Army advanced into Berlin, sappers blew holes in German barricades and disabled countless German gun emplacements with flamethrowers and explosive charges.

After WWII, Soviet engineers made a major contribution to the country's economic recovery, including clearing 59 million mines and disarming 122 million unexploded bombs.

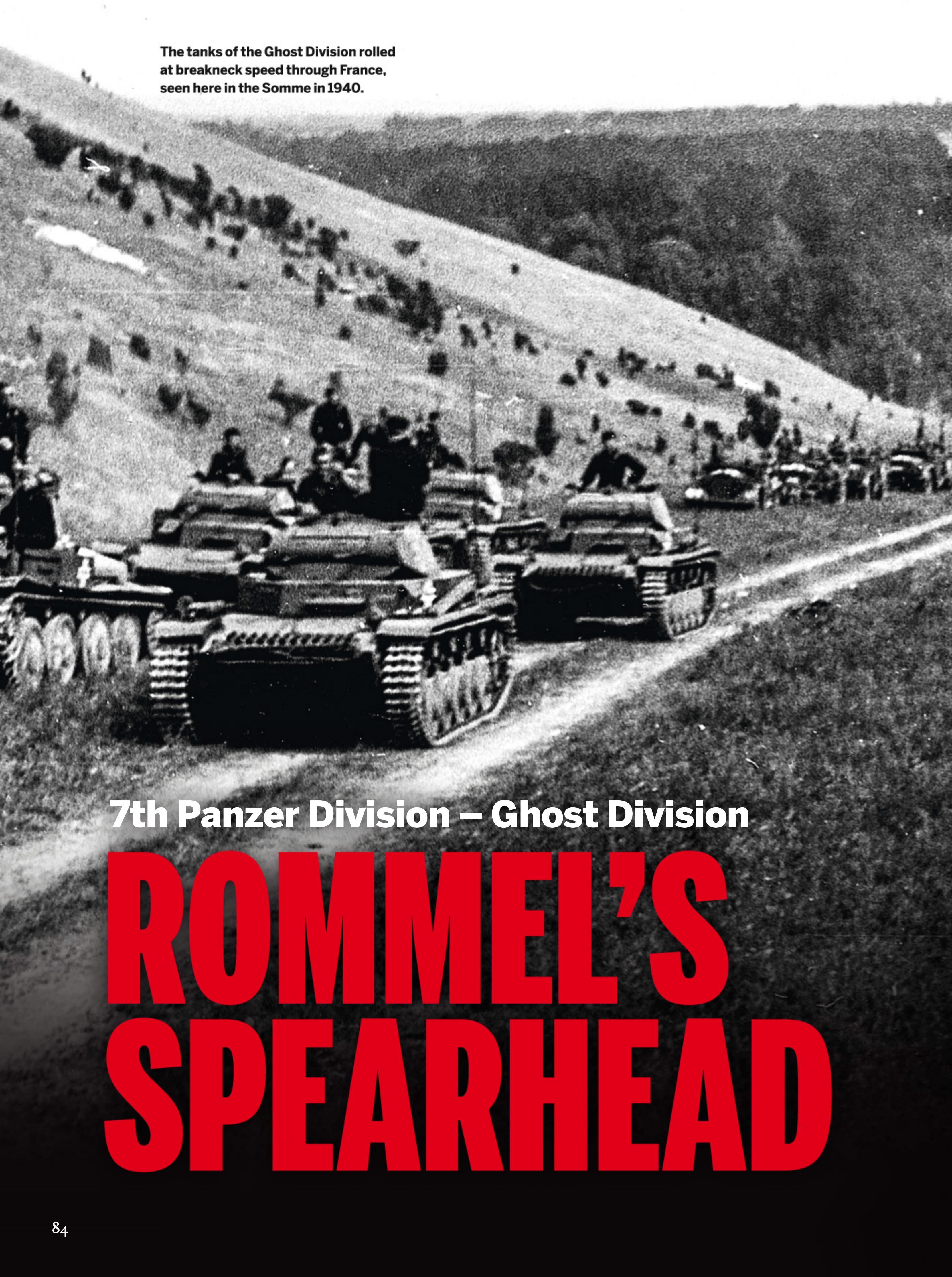
Overall, combat engineers have played such an important role that it's remarkable they've been so neglected by historians. Whatever the reason, it can't be down to a lack of interesting topics – their history is packed full of drama. ■

Christer Bergström is a writer and author of military history.

British Royal Engineers construct a pulley system. Photo taken around 1940.

FOX/GETTY

Further reading: First Across the Rhine (2009) by David E Pergrin and Eric Hammel ★ **German Pioneer 1939–45 – Combat Engineer of the Wehrmacht** (2010) by Gordon L Rottman



The tanks of the Ghost Division rolled at breakneck speed through France, seen here in the Somme in 1940.

7th Panzer Division – Ghost Division

ROMMEL'S SPEARHEAD

NARA (2)

During the invasion of France in 1940, Rommel took bold risks and pushed the 7th Panzer Division to its limit. It would make a name for itself as one of the greatest armoured units in history when the French thought its soldiers appeared out of nowhere – like ghosts.

Text: **MATHIAS FORSBERG**

Erwin Rommel led his forces from the front and achieved one of the greatest military feats of all time.

ULLSTEIN/GETTY

Motorised units cross a river during the invasion of the Benelux countries.

During the summer of 1940, the world was shocked when Germany's lightning attack defeated France in less than six weeks. The German armoured divisions took the initiative and pushed forward relentlessly, while France's tactics proved hopelessly outdated. Among the German armoured units, one division stood out: the 7th Panzer Division. Under the command of General Erwin Rommel, it became known as *die Gespensterdivision* – the Ghost Division – or *Division Phantôme* to the French. The name arose from its ability to constantly appear where the French least expected it to demolish the Allied front line.

IN THE WINTER OF 1939-40, the 7th Panzer Division was just one of ten German armoured divisions, with nothing to distinguish it from the rest. The appointment of Rommel as division commander in February 1940 was not a foregone conclusion, as it's easy to assume in retrospect, but was a controversial choice among German officers. Rommel lacked senior command experience and skipped several career steps in the German officer corps, with its traditional Prussian leanings. The army's personnel department had recommended he took command of a mountain hunter division, in light of Rommel's success as a company commander against the Italian army in the Alps in 1917.

Rommel's wish to command a panzer division was granted because of his personal relationship with Hitler, which was worth more than any command experience. The two men had met at a parade in 1934 in Goslar, where Rommel also met the minister of propaganda, Joseph Goebbels. Hitler appreciated that Rommel, like himself, came from a working-class family and didn't belong to Prussian nobility, to whom the former corporal felt inferior.

FROM 1935, ROMMEL taught at the military academy in Potsdam for three years. Before the invasion of Czechoslovakia in 1938, he was handpicked to command the *Führerbegleitbataillon* (FBB), Hitler's military escort. In Potsdam, Rommel wrote the book *Infantry Attacks,* which explored many of the ideas that came to constitute blitzkrieg, but unlike other famous German officers, Rommel never wrote about armoured theory during the interwar period.

In Poland in 1939, Rommel remained as FBB commander. Hitler and Rommel are said to have got on well during the campaign and Rommel expressed his desire to command an armoured

“THE FIRST MAJOR OBSTACLE WAS THE RIVER MEUSE”

division afterwards. It is sometimes suggested that the 7th Panzer Division was a propaganda unit for the Nazi Party. Rommel was given a camera by Goebbels, for instance, but overall Rommel was an ambitious, career-driven man who purposefully and single-handedly built himself up into a legend.

In the run-up to the 1940 campaign in the West, the 7th Panzer Division was integrated into the XV Army Corps under Colonel-General Hermann Hoth, along with the 5th Panzer Division and the 62nd Infantry Division. The corps was part of the 4th Army on the Northern Front. All the other divisions were infantry, to protect the flank. The main attack with the other armoured divisions was to take place south of the XV Corps.

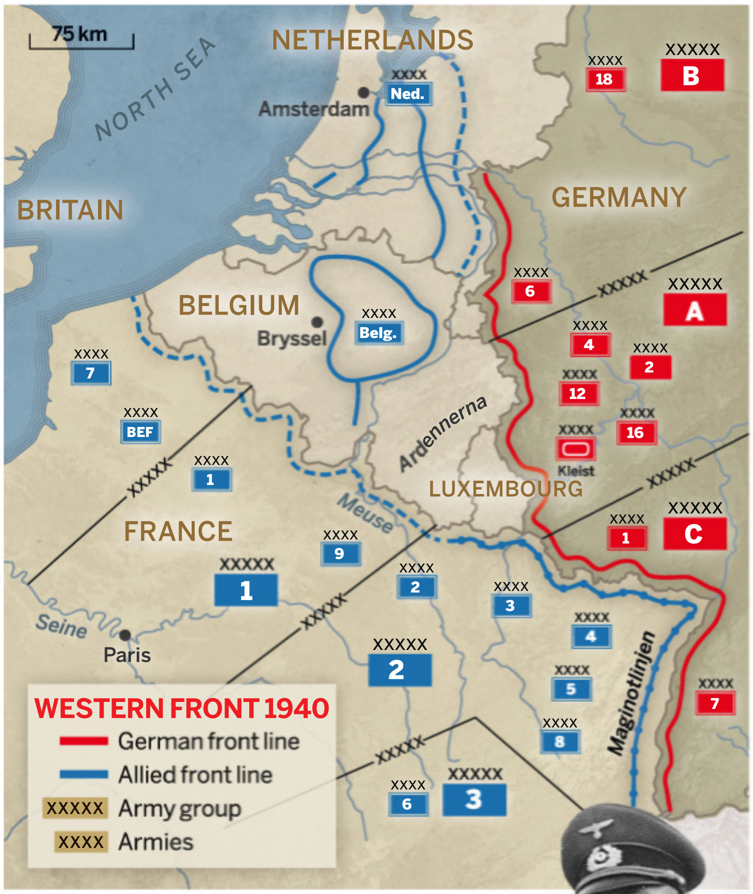
ARMY GROUP A FORMED the main force, which would make a daring attack through the Ardennes, while Army Group B would advance into the Netherlands and northern Belgium. Army Group C would secure the southern sector along the Franco-German border, where the French had built the Maginot Line for defence and were expecting the Germans to invade..

Late in the evening of 9th May, the code word “Danzig” went out to the German troops and Rommel wrote a letter to his wife regretting that it was likely to be some time before their next correspondence. The offensive in the West was to begin the following morning, and at 04.35 on 10th May, the 7th Panzer Division rolled towards France via Belgium.

The first day’s resistance, according to the division’s war diary, consisted mainly of “strong and deep border obstacles” that had been placed along the German-Belgian border. Several Belgian bridges were captured intact and Rommel’s men advanced 90 kilometres in the first two days at the cost of four killed and a dozen wounded – a remarkable feat.

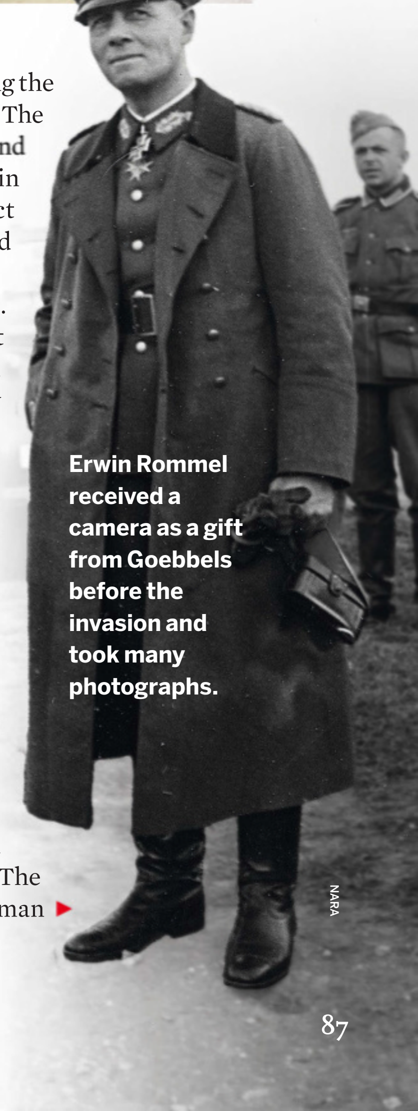
The lack of resistance was due to the fact that the Belgian Army was concentrated in northern Belgium, where the French and British units that were due to come to Belgium’s aid had not yet reached. The Franco-British plan went by the code name Dyle but was often called Plan D, and its main goal was to establish a defensive line from the French border in an arc towards Antwerp.

Even in the first two days, the abilities that would earn the soldiers the nickname Ghost Division were obvious: at each step, Rommel gave the order to continue onwards without either consolidating the captured terrain or bothering about the flanks. The chief of staff of the division, referred to as *Ia* and formally called the operations officer, noted in the war diary that the division had lost contact with the 5th Panzer Division to the north and the 321st Infantry Division to the south.


75 km
NORTH SEA
NETHERLANDS
Amsterdam
XXXX Ned.
XXXX 18
XXXXX B
BRITAIN
GERMANY
BELGIUM
Bryssel
XXXX Belg.
XXXX 6
XXXXX A
XXXX 7
XXXX 4
XXXX 2
XXXX 12
XXXX 16
XXXX BEF
Ardennerna
Kleist
XXXX 1
LUXEMBOURG
XXXX 1
XXXXX C
FRANCE
Meuse
XXXX 9
XXXXX 1
XXXX 2
XXXX 3
XXXX 4
Seine
Paris
XXXXX 2
XXXX 5
Maginotlinjen
XXXX 7
XXXX 8
XXXX 6
XXXXX 3
WESTERN FRONT 1940
German front line
Allied front line
XXXXX Army group
XXXX Armies

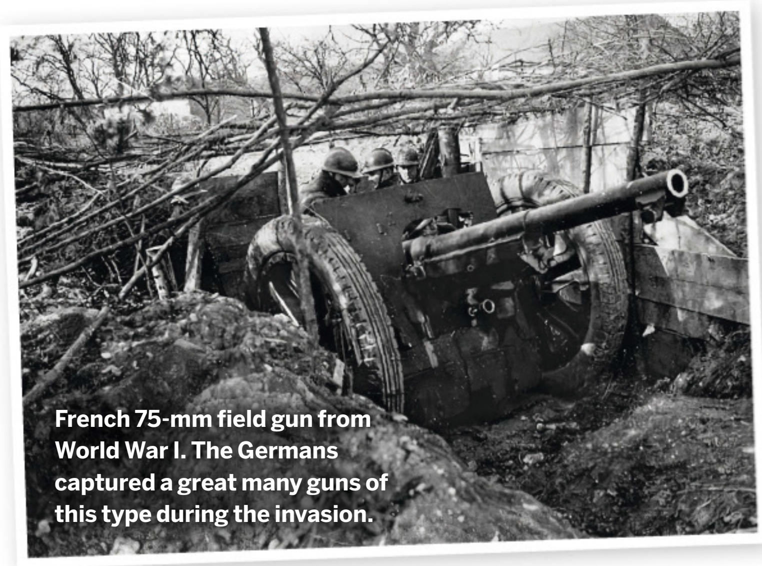
The first major obstacle was the River Meuse. When the Germans received reports that strong French armoured units had gathered to block the advance towards the strategically important crossings, the 7th Panzer Division was only 35 kilometres from the river. A more cautious or rational commander might have stopped, but Rommel instead gave his leading officers orders to attack immediately at 07.00 on 12th May. By 10.00, the Germans had found a gap and stood only 27 kilometres from Dinant.

THE MAIN FRENCH FORCE tasked with stopping the XV Corps was the 9th Army under General André Corap. At the age of 62 and with a long period of service in French North Africa under his belt, the French general was nothing like the German panzer officers. The French field armies were smaller than the German ►



Erwin Rommel received a camera as a gift from Goebbels before the invasion and took many photographs.

NARA



French 75-mm field gun from World War I. The Germans captured a great many guns of this type during the invasion.

ones, but the 9th Army mustered nine divisions, two of which were mechanised, and on paper constituted a more than sufficient force to halt the Germans in the difficult terrain.

On the afternoon of 12th May, the 7th Panzer Division reached the Meuse. The river cuts through the terrain in a series of S-shaped curves surrounded by steep banks and hills. The terrain is more reminiscent of the Grand Canyon than a typical European river, making it difficult to defend or attack – success would come down to how each commander made use of the landscape and available resources.

CORAP HAD LET his units retreat across the river and had originally expected to hold the eastern bank for five days with lighter units. When things happened faster than anticipated, the French defenders – which, for the 7th Panzer Division, consisted of the 18th and 22nd French Infantry Divisions – weren't prepared. Most of the bridges were blown up, but some inexplicable gaps were left.

Rommel's forces reached the eastern bank of the Meuse at 16.45 on 12th May, almost eight hours before Guderian's men. Rommel wasted no time and drove along the front in an armoured vehicle, looking for suitable places to cross the river that same night.

Soon, a motorcycle platoon found a small dam at Houx that was connected to an island in the middle of the river. It was not only intact but also undefended. Facing no resistance, the soldiers crossed without their motorcycles and became the

first German soldiers on the west bank of the Meuse, almost 18 hours before Guderian's better-known crossing at Sedan.

The dam had not been forgotten by the French defenders, but they had chosen not to blow it up, fearing that the water level further upstream would lower and make it easier for the Germans to wade across. They had compounded their tactical error by leaving the dam undefended.

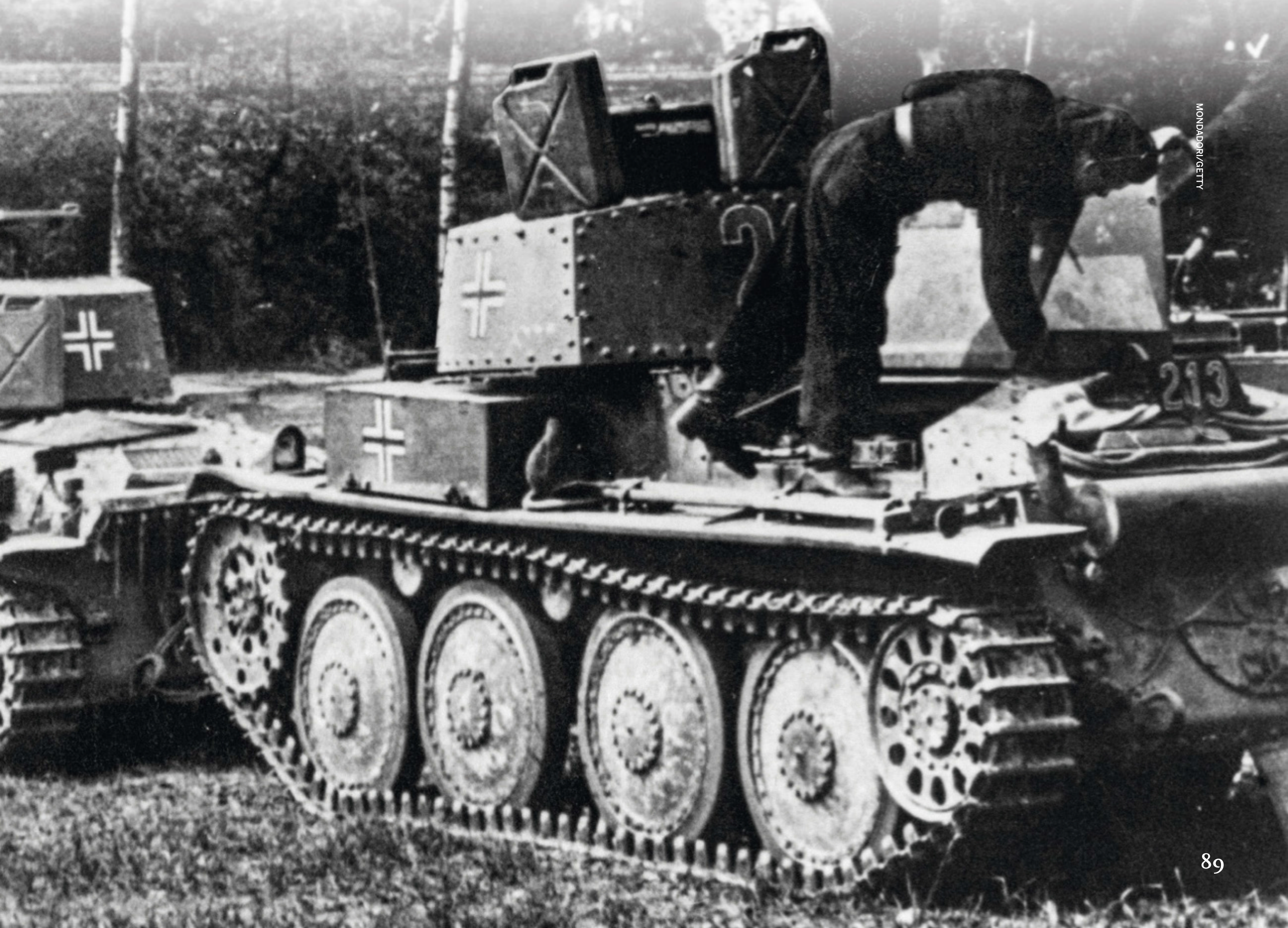
HERE THE DIFFERENCES in command style were clear – while Corap tried to modify an existing strategy when the situation changed, Rommel immediately drove along the bank to ensure that the division made maximum use of the situation, without worrying about the previous plan. A more cautious commander would probably have also prepared properly for the river crossing and fortified the bridgehead with air and tank defences, instead of personally leading the crossing.

Thus, the Ghost Division appeared on the other side of the river in the middle of the night, which had a demoralising effect on the French. It's telling that the commander of the French 18th Infantry Division, General Martin, received confirmation that the Germans had crossed the river in his sector at 07.00 in the morning but did not get in touch with Corap until the evening of 13th May, as Rommel followed the crossing through his binoculars.

> **"ROMMEL WASTED NO TIME AND DROVE IN AN ARMOURED VEHICLE ALONG THE FRONT"**

THE FRENCH WERE NOT completely helpless and made several counter-attacks on 13th May. Rommel had failed to ship over any defensive weapons, such as anti-tank guns, in favour of armoured personnel carriers and tanks, leaving the Germans exposed when the French attacked, supported by their tanks. After personally taking command of a battalion, Rommel led the battle and improvised several times. Smokescreens were laid, the French were fired upon from the eastern bank of the river, and as the tanks approached the German infantry, he gave the order to open fire

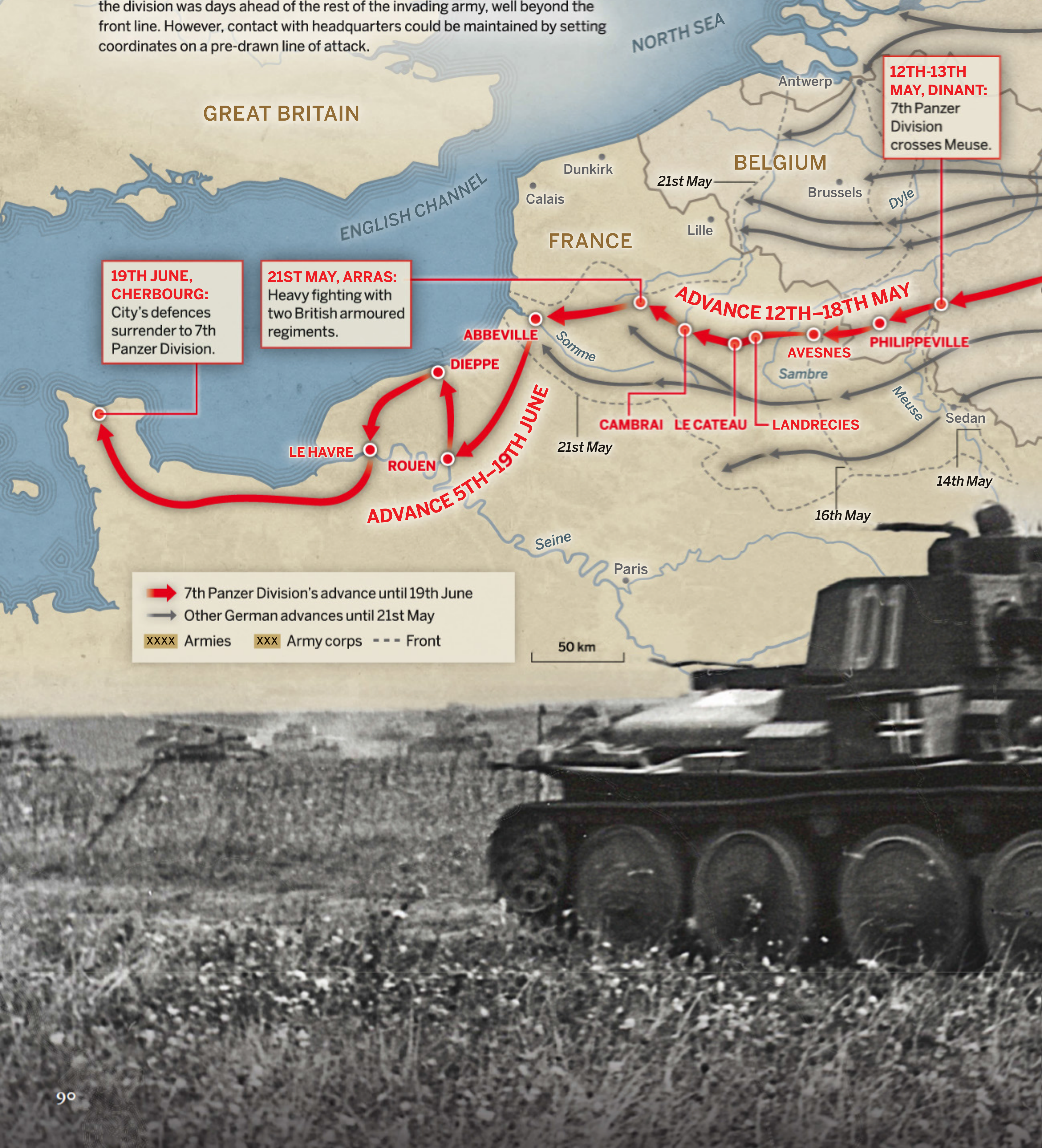
Text continues on page 92


The 7th Panzer Division paved the way for Guderian's crossing of the Meuse.

MONDADORI/GETTY

1940 TANK ATTACK

★ During the invasion of France from 10th May to 25th June 1940, the 7th Panzer Division, led by Erwin Rommel, spearheaded the assault. At times, the division was days ahead of the rest of the invading army, well beyond the front line. However, contact with headquarters could be maintained by setting coordinates on a pre-drawn line of attack.


NETHERLANDS
NORTH SEA
GREAT BRITAIN
Antwerp
BELGIUM
Brussels
Dyle
Dunkirk
Calais
21st May
Lille
ENGLISH CHANNEL
FRANCE
ADVANCE 12TH–18TH MAY
ABBEVILLE
Somme
AVESNES
PHILIPPEVILLE
Sambre
DIEPPE
Meuse
Sedan
CAMBRAI
LE CATEAU
LANDRECIES
LE HAVRE
ROUEN
ADVANCE 5TH–19TH JUNE
21st May
14th May
16th May
Seine
Paris
50 km

12TH-13TH MAY, DINANT: 7th Panzer Division crosses Meuse.

19TH JUNE, CHERBOURG: City's defences surrender to 7th Panzer Division.

21ST MAY, ARRAS: Heavy fighting with two British armoured regiments.

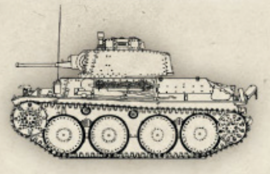
➡ 7th Panzer Division's advance until 19th June
→ Other German advances until 21st May
XXXX Armies
XXX Army corps
- - - Front

XXXX
18
GERMANY
XXXX
6
XXXX
4
XXX
Hoth
(härunder Rommel)
XXX
Reinhardt
XXXX
Kleist
XXX
Guderian
LUXEMBOURG.

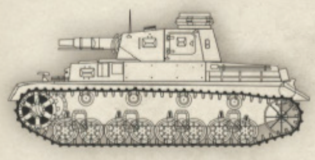
7TH PANZER DIVISION'S AND ALLIED TANKS

Before the invasion, Germany had 2,445 tanks against France's 3,383 on the Western Front. German blitzkrieg tactics, however, proved decisive in the Nazi victory.

7TH PANZER DIVISION



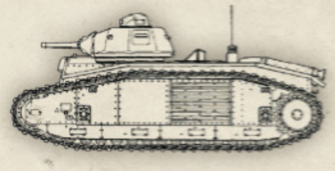
Panzer 38(t) – the Czech light tank was the most common in the division and had a crew of four.



Panzer IV – the only medium tank the Germans possessed in 1940 and the 7th Panzer Division had just 24.

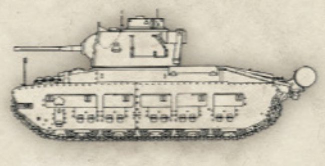
7th Panzer Division 10th May 1940:
34 Pz I, 68 Pz II,
91 Pz 38(t), 24 Pz IV,
8 Bef.Pz 38(t).

FRANCE



Char B1 – the French heavy tank Char B1 was superior to all German tanks with its impenetrable armour. Had the French made better use of their heavy tanks, the outcome of the 1940 campaign could have been very different.

GREAT BRITAIN

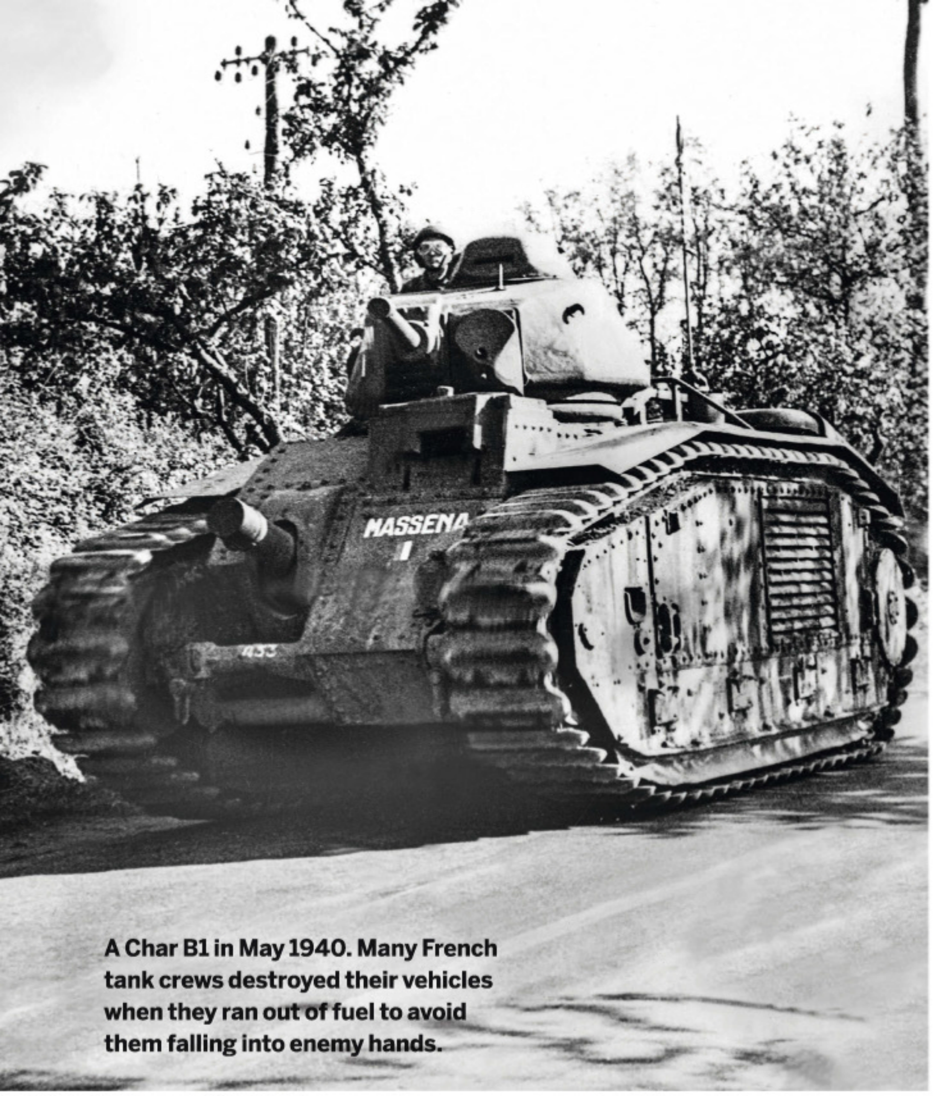


Matilda II – during the Battle of Arras, the British deployed 16 Matilda IIs and 58 Matilda Is. The heavily armed Matilda IIs caused trouble for the 7th Panzer Division and it was only when anti-aircraft guns were deployed that the Germans could stop the British counter-attack.

German tank crew in front of a knocked-out French Char B1 tank.

NARA (2)

The 7th Panzer Division advances through artillery fire in northern France, May 1940.



A Char B1 in May 1940. Many French tank crews destroyed their vehicles when they ran out of fuel to avoid them falling into enemy hands.

KEYSTONE-FRANCE/GETTY

NARA

The light Czech Panzer 38(t) formed the backbone of the 7th Panzer Division's arsenal. Its 37-mm gun could not penetrate the armour of the heavy French tanks. Behind is a Panzer II with a 20-mm gun.

▶ with everything. The seemingly strong German bombardment caused the French tanks to retreat.

THE CASUALTIES SHOW how ferocious the fighting was on 13th May. Sixty men from the Ghost Division were killed and 130 were wounded or missing, while as many as 16 men from the division were awarded the Iron Cross First Class. This is an indication of how many of the division's soldiers made personal sacrifices to achieve their goal.

Rommel continued to press the French to surrender. Although, by dusk on 13th May, the men of the 7th Panzer Division had been advancing or fighting for four days straight, Rommel ordered the bridgehead to be extended during the night and the offensive continued. At Onhaye, just west of Dinant, a misunderstanding turned into a major advantage for the Germans and contributed to the legend of the Ghost Division.

The units had advanced westwards during the night to make the most of their psychological advantage. Just before dawn, the commander of the 7th Infantry Regiment, Colonel Georg von Bismarck, sent a radio message to say they had engaged French forces. However, the message was misunderstood at divisional headquarters, where Rommel interpreted the message as meaning that they had been surrounded *(eingeschlossen)* by French forces rather than that French resistance had been encountered *(eingetroffen)*. Many in the German command, particularly the infantry officers, were concerned about the rapid German advance and when a forward force was feared to be surrounded, the army commander Günther von Kluge immediately started talking about the "Onhaye crisis" and prepared to divert his forces.

ROMMEL ACTED IMMEDIATELY, setting up a battle group with every available vehicle and placing it under the command of the 25th Panzer Regiment's Colonel Karl Rothenburg. Then the general himself accompanied the column to the front line in a command tank. The division's men began to say, "The front is where Rommel is." It was, therefore, something of a wake-up call when the tank Rommel was travelling in was hit twice by French anti-tank fire and then plunged into a gravel pit, where it became stuck. Rommel escaped with a wound to his chin and evacuated the tank along with his crew.

Apart from the hit to Rommel's tank, there was little for the French to rejoice about. General Corap played his last card in the form of the French 1st Armoured Division under General Bruneau, which had been brought into the faltering 9th Army to attack Rommel's bridgehead at Dinant. The

"IT ENDED IN DISASTER FOR THE FRENCH GENERAL"

French counter-attack on 15th May and the advance thereafter demonstrate why the Ghost Division deserved its name. The French division fielded nearly 250 tanks, including several heavier Char B1 models that the Germans could not match with their own tank armament or 37-mm anti-tank guns. It's no exaggeration to say that, at least on paper, Bruneau's division was stronger than all the German armoured divisions. Bruneau also had the element of surprise on his side, because Rommel had not been told that the division had moved to the front. Despite this, it ended in disaster for the French general.

General André Corap commanded the French 9th Army.

BY THE EVENING OF 14TH MAY, the tanks of the French 1st Armoured Division had spread out in the area around Flavion to refuel, and on the morning of 15th May, they regrouped for an advance eastwards. There the differences between German and French command philosophies became clear. According to the 7th Panzer Division's war diary, offensive equipment such as armoured personnel carriers and tanks was consistently given priority over defensive weapons, such as anti-tank or anti-aircraft guns, to reinforce the beachhead. The Ghost Division also pressed forward during the night, while the French stood still and had to start with an outdated situation report each morning.

The circumstances created a strange situation on the morning of 15th May. Both sides found themselves caught up in counter-attacks, with the two advancing parties caught by surprise. It was more reminiscent of an early-modern-period cavalry shock than 20th-century mechanised operations.

THE 25TH PANZER REGIMENT rallied in the face of the enemy and attacked the French forces as it encountered them, but quickly realised that it would be difficult to win the battle on the ground. To knock out the French tanks, the Germans had to get lucky and hit the weaker parts of the enemy's armoured vehicles or hope to damage their sides or caterpillar tracks. Instead, at 11.00, Rommel ordered Rothenburg to withdraw from the battle and advance south-west toward Philippeville. In less than an hour, the 25th Panzer Regiment had broken free of the battle and advanced nearly 10 kilometres to Philippeville while the 1st French Armoured Division was still tied up by elements of the German 5th Panzer Division along the section of front north of the Ghost Division.

The mobile battle did not suit the French command philosophy at all. By the afternoon, the 1st Armoured Division had been all but wiped out as a fighting unit, three-quarters of the tanks had been lost, and the rest were making a disorderly retreat. The Ghost Division had appeared before the French had chance to rally themselves to attack, or so it seemed to the French leadership.

ON 16TH MAY at around 04.00, the reconnaissance battalion reported that it had reached the French border at Sivry. This meant that the 7th Panzer Division had reached the Maginot Line. The Germans made no distinction between the different parts of the defensive line, although the section along the Franco-Belgian border was more lightly fortified than the main part on the German-French border. Nevertheless, the area was defended with bunkers, resistance nests and tank obstacles.

In the run-up to the attack, there was some confusion in the ranks when Rommel was told not to leave divisional headquarters. It was not until around 09.30 hours that he was allowed to return to his forward HQ, where he discussed the day's attack with operations officer Otto Heidkämper. The confusion increased further when Kluge arrived and questioned why the attack had not been ►

The Ghost Division's infantry was sometimes left behind during the invasion – due to the rapid advance of the armoured units.

NARA

launched. The meeting gave the two officers time to jointly discuss a plan for the offensive and soon a consensus was reached. Later in the day, Rommel was given explicit orders not to advance – which he blatantly ignored, something many German armoured officers did during the campaign – in most cases, this contributed to their successes.

After a cautious start, the 7th Panzer Division found a way through the Maginot Line and reached more open ground by dusk on 16th May. Rommel was at the head and urged his armoured division to continue advancing through the night. By moonlight, the division drove through the French lines at Solre-le-Chateau, advancing more than 40 kilometres while shocked French rear units surrendered when the Germans suddenly appeared far beyond the front.

AS THE SUN ROSE, the German units of the 7th Panzer Division were just east of the village of Le Cateau. The Ghost Division had materialised at the rear of the French 9th Army, thwarting Corap's attempts to establish a new defensive line after the collapse of the 1st Armoured Division. The troops were exhausted, the supply of weapons and supplies was low, and they had just completed the most spectacular advance since the offensive began. The area captured by the 7th Panzer Division was a corridor over 40 kilometres deep but only a few kilometres wide. A more concentrated and mobile enemy could have acted and cut off Rommel's battle group. Two of Rothenburg's armoured battalions began to fortify their positions while Rommel requisitioned a vehicle and escort to return to Avesnes and contact divisional headquarters. The corridor was full of devastated French units wandering aimlessly, but there was also a rearguard from the 1st Armoured Division that should have been able to block the route.

"ROMMEL REALISED THAT THE INFANTRY HAD NOT FOLLOWED, BUT WERE STILL 40-50 KM TO THE EAST"

THE 7TH PANZER DIVISION'S staff hadn't heard from the 25th Panzer Regiment since they began the offensive and lacked an update on the situation. The 6th and 7th Motorised Rifle Regiments had instead regrouped further east in defensive positions. Rommel's journey towards the division's headquarters soon ran into trouble when his vehicle developed mechanical problems. His entourage also encountered several small groups of French soldiers.

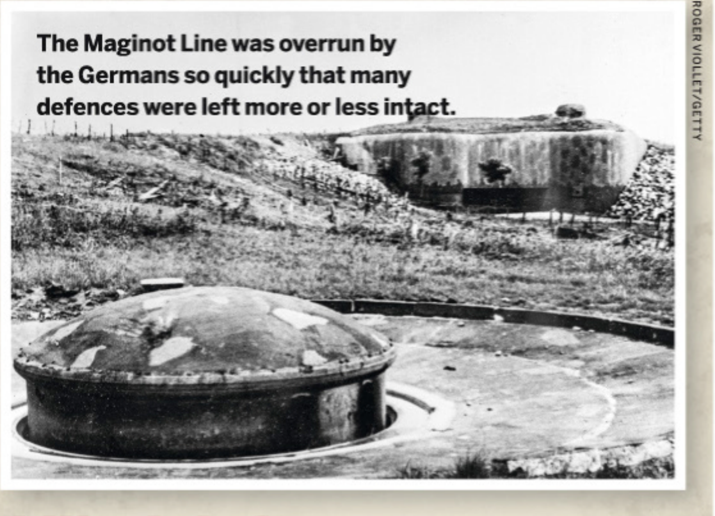
Eventually, Rommel realised that the infantry had not followed, but were still 40-50 kilometres to the east, and decided to head for Avesnes. When he finally got hold of the regimental commanders, he ordered them to head west. He then took personal command of parts of the 37th Panzer Reconnaissance Detachment. In his typical manner, he assembled a few tanks into a battle group and drove a column of maintenance vehicles back towards Rothenburg's forward position.

Once at Le Cateau, he found Rothenburg's armoured regiment cornered by French counter-attacks, and it turned out that the maintenance vehicles had not managed to keep up with the reconnaissance battalion. Rommel then made a second trip through the corridor to ensure that the supplies arrived. It wasn't until 15.00 that the lines were secured and for the third time that day, Rommel arrived at Rothenburg's position.

THE EVENTS OF 17TH MAY prompted operations officer Heidkämper to write a post-campaign memo to Rommel and Hoth, among others, stressing that a division commander needed to stay behind the front, near his staff position, for an armoured division command to function. Rommel responded by stressing the importance of senior commanders not fearing that "the command of the division was no longer secure" simply because the commander – like Rommel – had 'disappeared' to survey the battle near the front.

The results of the fighting in the first week of the campaign clearly showed that Rommel's assessment of the situation had been correct. Corap's army had been defeated and the defences had collapsed, while three German panzer corps could now gaze across the English Channel towards the British coast.

A further detail that made Rommel's presence at the front outweigh the disadvantages of his lack of presence with the staff was that the division's direction of attack had been plotted in advance by a *Stoßlinie der Division,* a line drawn by the staff between two clearly identifiable points and distributed to the units that would be attacking. As the various units at company and battalion level advanced, the staff could easily find their position and how far they had moved by referring to a point on the map. For example, "17 R 1.5" meant that the units had advanced to a point 17 kilometres along and 1.5 kilometres to the right of the so-called thrust line. This enabled the signalmen to exchange positions in plain language over the radio without revealing any place names or other geographical signifiers to the enemy.


The Maginot Line was overrun by the Germans so quickly that many defences were left more or less intact.

ROGER VIOLLET/GETTY

Allied defences

★ The Allies expected the main German attack to be through Belgium, as in 1914, and drew up a defensive plan called Plan D, or the Dyle Plan. In the event of an attack, French and British forces would advance to the line between Givet, Namur and the River Dyle. But the plans could not be realised before the German invasion in 1940. The Maginot Line was established in the 1930s to deter a German invasion. Along the Franco-German border, it consisted of solid fortifications with defensive systems of bunkers, gun towers and underground stores. To the north, it was made of small tank obstacles and was almost non-existent in the Ardennes, where the terrain was considered too difficult for major offensive operations.

It's important to point out that the thrust line was a tool for situation reporting and planning the general direction of attack, not an order to advance exactly along the line at any cost. If the division's units happened to encounter strong enemy forces or fortified positions, they regrouped to search ►

Rommel in his armoured SdKfz 251, in which he drove between the front and headquarters.

NARA

for weaker points, even if this meant deviating from the line.

ROMMEL MET HOTH AGAIN on 19th May and discussed the final leg towards the English Channel. Hoth was worried about the troops' exhaustion, but Rommel insisted on continuing to put pressure on the Allies and argued that they should attack that very night. He stressed that night attacks achieved better results, with fewer casualties.

The attack, which began shortly after midnight, shared several similarities with earlier advances. The area was marked by a number of canals and small rivers, and the motorised infantry soon found several undamaged bridges. At dawn, Rommel joined a unit that had reached a position just south of Arras.

Once again, parts of the infantry and maintenance fell behind and Rommel requisitioned two armoured vehicles to go back and personally unblock the bottleneck. Again, he encountered French forces who fired on his entourage to the extent that both vehicles were destroyed. For several hours, Rommel and his signal troops stayed put, waiting out the French, again without anyone else from the 7th Panzer Division knowing where he was. Rommel sent a number of messages with instructions and thrust line coordinates between 02.00 and 08.00 on 20th May, then stopped.

By the evening of 20th May, the German 2nd Panzer Division had reached the Channel coast and the Allied units had split in two. On the same day, the 7th Panzer Division advanced more than 40 kilometres towards Arras and was less than 80 km from the coast. Several German panzer divisions were spread out, with the infantry trailing tens of kilometres behind. The flanks were vulnerable and there was a risk of counter-attacks, as the cautious German General Staff officers had warned.

"HOTH WAS WORRIED ABOUT THE TROOPS' EXHAUSTION"

NARA

Rommel with his superior, Colonel-General Hermann Hoth.

THE ALLIES WERE aware of what was happening, but the situation was far from simple. Three nationalities with different interests had to agree on a common strategy. The counter-attack that was finally agreed upon was to take place in the 7th Panzer Division's sector. Rommel had received intelligence of concentrations of French and British troops north of Arras, but dismissed it, believing the Allies were unable to mount a concerted attack.

This was probably true of most of the French and few remaining Belgian units, but the British Expeditionary Force (BEF) was almost undamaged and on paper had a strong combat value – but that assumed that the British could react as quickly as

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The Ghost Division approaches Arras, where one of the unit's most difficult battles against British and French forces would occur.

the Germans. Instead, the British and French spent several valuable days discussing the issue among themselves, and even within the British Army there were differences of opinion. Winston Churchill had become prime minister on 10th May and from his first day in office had been pressing for a more offensive British force on the Western Front, saying the German panzer divisions were like a "tortoise [that] has protruded its head very far from its shell".

The commander of the BEF, Lord Gort, agreed that the situation was favourable, but remained sceptical even when the Chief of the Imperial General Staff (IGS), Sir Edmund Ironside, arrived at Gort's headquarters on 20th May to suggest a major offensive south of Arras. Most of the British divisions were under pressure from the east and Gort believed it would be difficult to withdraw them without disrupting the whole front.

French artillerymen attempt to repel a German attack with a 120-mm gun, 22nd May 1940.

THE BEST GORT could offer with the BEF was a limited counter-attack with two divisions, with the British 50th Infantry Division leading the assault. An armoured battle group with two leaders would cut off German communications and maintenance. The attack was to be carried out immediately. Meanwhile, the 25th Panzer Regiment had been ordered to proceed towards Arras when reports began to come in that the British were about to attack. As Rothenburg began to roll north, Rommel left and headed for the 7th Infantry Regiment to make sure they did not fall behind this time.

This meant that Rommel was driving around an empty landscape when the British attack began. Rommel found no troops from the 7th where they were supposed to be. Instead, after a while, he found German soldiers along the road between Ficheaux and Wailly, who turned out to belong to the 6th Infantry Regiment. After riding with the unit to Wailly, Rommel found himself back at the front line as British tanks from the 7th Royal Tank Regiment shelled German positions and approached the town, where parts of the division's artillery with 105mm field howitzers were grouped.

Rommel immediately stated that the situation was "an extremely tight spot". The German soldiers fell back in disarray and several crews abandoned their artillery pieces. True to form, Rommel ►

▶ stepped forward and saw to it that German fire was increased to push the British back, while he made sure that several gun crews returned to their pieces.

THE BRITISH COUNTER-ATTACK at Arras is known for being the first time German heavy anti-aircraft guns – known as 88s, after their 88-mm calibre – fought British tanks. The anti-aircraft guns had long launch tubes with a high muzzle velocity and good accuracy, which made them ideal for anti-tank use. However, this was not something that the Germans came up with in the heat of battle, as is sometimes suggested, but the idea had been thoroughly investigated by the army before the campaign and the guns had been fitted with anti-tank ammunition in advance. Furthermore, Rommel himself was never present at the batteries that fired directly on British tanks at Arras.

However, Rommel was dangerously close to the fighting at Wailly, as was demonstrated when his adjutant, Lieutenant (posthumously promoted to Captain) Joachim Most, just a

“FIERCE FIGHTING WAS REQUIRED TO HALT THE BRITISH ATTACK”

A German 105-mm leFH 18 field gun from the 7th Panzer Division’s artillery in Arras.

NARA

few metres from Rommel, fell, mortally wounded. Rommel had been standing with his entourage on a railway embankment, almost defiantly exposed, surveying the fighting when Most fell victim to a Scottish sniper.

A LITTLE LATER, a British tank came close to a shell crater in which Rommel and his telegraphist had taken cover. However, the tank's crew chose to surrender rather than go down in history as Rommel's slayers – although, in their defence, the commander had been killed and the tank was suffering from mechanical problems.

In the afternoon, the 25th Panzer Regiment turned under Rommel's orders and began attacking the British flank. Towards evening, the offensive power faded and the British returned to their positions. Fierce fighting was required to halt the British attack, as the 89 Germans killed and 116 wounded testified. A further 173 were reported missing but more than half returned to the unit over the days that followed. The casualties were the highest for any single day during the French campaign and it was the only day the division reported a significant number of wounded. The German casualties should also include the 3rd SS Panzer Division Totenkopf's losses of around 100 killed and wounded, because the unit fought with the Ghost Division during its defence.

The interesting thing about the British counter-attack was that it was characterised by the same lack of preparation as many of the German attacks. With hindsight, the British argued that the assault hadn't succeeded for a number of reasons. There had not been enough air support, the artillery had not had time to group in a favourable position, the radio link between tanks and infantry had not been established, several of the units had not assembled in advance and, it was stressed, there had been such a rush that orders had not had time to be distributed down to individual tank or platoon commanders.

IN SHORT, THEY FACED exactly the same issues that the 7th Panzer Division had experienced during its attacks. When the British attempted to do the same thing as the Germans, they gained barely any ground, which clearly shows just how skilful the Ghost Division was – like many other German armoured divisions.

On a tactical level, the British attack achieved little, but on a strategic level it may have contributed to one of the more controversial decisions of the war: the German stop order. On 22nd May, German troops were so close to Dunkirk that Guderian could see the church tower in the square from his vantage point when High Command ordered the German divisions to halt. Rommel and his 7th Panzer Division probably contributed to the German High Command's and Hitler's growing nervousness by overstating the British attack force at Arras. The report spoke of hundreds of tanks, while only about 120, including 60 French ones, had taken part in the offensive on 21st May.

The Germans left the French countryside in ruins.

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IMPERIAL WAR MUSEUM

The British Matilda II had thick armour and was almost immune to the Germans' guns. But at the time of the invasion, there were only 23 in France.

Apart from the fact that Rommel received the surrender of the French garrison at Lille, the last days of May were relatively uneventful for him, while the British fleet evacuated 335,000 British and French troops right under the Germans' noses.

ON 2ND JUNE, the 7th Panzer Division received relief for the first time since the start of the campaign. Rommel was also the only panzer division commander to meet Hitler, prompting the German general to write proudly to his wife that Hitler had said: "Rommel, we were very worried ►

NARA

A tank crew from the 7th Panzer Division poses with its Pz IV in a French town.

about you during the attack." As the Franco-British troops evacuated from Dunkirk, the 7th Panzer Division prepared for the second phase of the campaign and the attack southwards. Thanks to its successes, the German Army was suddenly numerically superior in both men and tanks. The XV Army Corps prepared to cross the Somme on the morning of 5th June 1940.

The crews of the 25th Panzer Regiment were woken shortly after midnight on the night of 5th June 1940 and at 02.30, the tanks rolled into position at the town of Bourdon for the crossing of the Somme.

ALTHOUGH THE FRENCH defences had time to prepare, the Germans were able to locate and capture an undamaged railway bridge. Soon the Ghost Division's vehicles were rolling across the river. Coordination between the tanks and infantry was poor once again, however, and the majority of the tank companies were on the defensive most of the day and all night without support from infantry. It was only because of the French lack of strength that they did not retreat.

The next day, Rothenburg sent a couple of tanks back to establish contact with the infantry and only then did any infantry units arrive.

AT 10.00 ON 6th June, the breakout from the bridgehead began with the reconnaissance battalion leading in one direction and a motorcycle battalion in the other. The Germans had to fight hard for their breakthrough at first, but with their flexible approach, the 25th Panzer Regiment soon found gaps in the French lines and managed to advance almost 30 kilometres before nightfall. The

NARA

The Ghost Division reached the English Channel at St Valéry on 12th June.

5th Panzer Division broke through on the flank and the defensive line that the new French Commander-in-Chief Weygand had tried to establish was shattered by the second day.

ROMMEL DESCRIBED THE second part of the offensive to his wife as a lightning-fast tour of France. On 8th June, the 7th Panzer Division reached the bridges over the Seine at Rouen, by which time the division had advanced over 100 kilometres in three days and taken more than 1,000 French prisoners of war a day.

However, it should be noted that the daily German casualties in June 1940 were generally as high as in May, so the French had by no means given up. The Ghost Division lost over 250 men from 5th to 6th June, almost as many as at Arras or Sedan.

Rommel continued with the aim of making it to the coast before the retreating Allied forces could reach Le Havre, which, with its large port, had the potential to be a second Dunkirk. On the 10th, Rommel sent a message to Hoth in his typically terse style: *"Bin an der Küste"* – "Am at coast." By its rapid advance, the 7th Panzer Division had prevented the British 51st Infantry Division and the French 9th Army from reaching Le Havre, and the Allied forces retreated instead towards St Valéry, where they were cornered against the sea. On the morning of 12th June, the French surrendered, first with 35,000 men, then Major General Victor Fortune handed over his unit with 10,000 British prisoners of war to Rommel and the 7th Panzer Division.

On 17th June, Rommel was ordered to take Cherbourg and the 7th Panzer Division set off across Normandy (the same route that would take the Allies two months in 1944), advancing an unimaginable 240 kilometres in 24 hours. Rommel made a ring around the port town and received the surrender of over 30,000 French troops on 19th June. The division then continued south-west and was only 300 kilometres from the Spanish border when the armistice was announced on 25th June.

In six weeks, the Ghost Division had driven through almost all of France, taken 97,000 prisoners of war, claimed over 450 destroyed enemy tanks and captured over 4,000 French and British vehicles. The 1940 campaign in the West was one of the greatest feats in military history, and the 7th Panzer Division's efforts were the most impressive of all.

ROMMEL SPENT SOME of the autumn taking part in the German propaganda film *Victory in the West,* in which the 7th Panzer Division appeared in several scenes, including the counter-attack at Arras. In January 1941, Rommel was reassigned to a new command and continued the fight against the British in North Africa. The new commander of the 7th Panzer Division was General Hans von Funck, who had been earmarked to command the Afrika Korps before Rommel was given the position.

FOR THE 7TH PANZER DIVISION, the war continued on the Eastern Front, where it formed part of the northern pincer in three of the most spectacular encirclement operations of 1941: Minsk, Smolensk and Vyazma-Bryansk. By December 1941, the division was outside Moscow. In the summer of 1943, it took part in the Battle of Kursk, and in summer 1944, it was surrounded in the Courland Pocket, where it was eventually evacuated by sea.

The remnants of the 7th Panzer Division formed a new unit, which was deployed to Poland, where, in spring 1945, the division was surrounded on the coast at Danzig, not unlike the British 51st Division in 1940. Some of the men were evacuated by sea and in May 1945 the division formally surrendered to British forces at Schwerin. For the survivors, the victorious days of 1940 were a mere memory, but the legend of the Ghost Division lives on. ✪

Mathias Forsberg is a military history writer.

CORBIS/GETTY

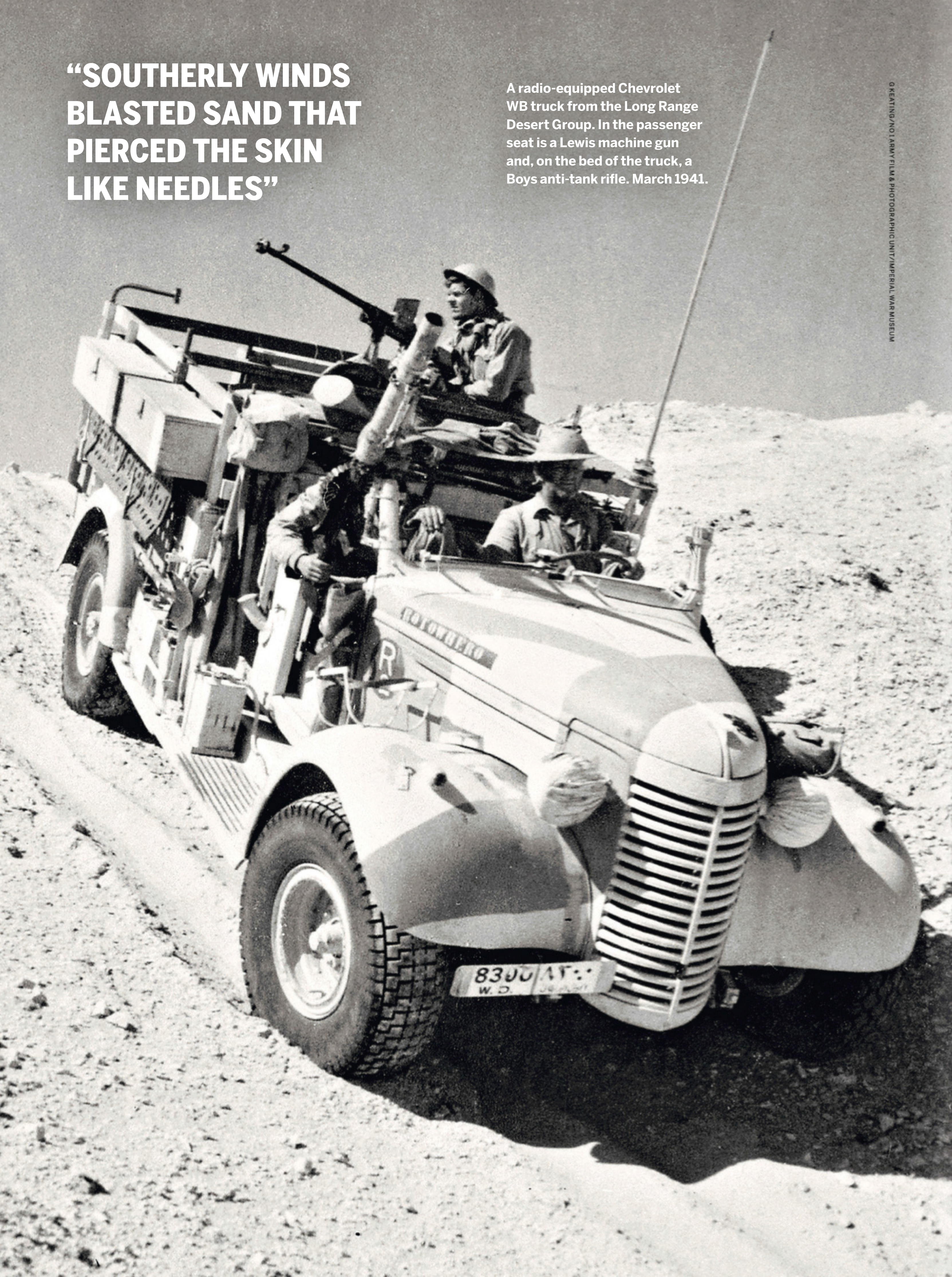
The Allied retreat across the Channel, Operation Dynamo, involved 800 ships.

Stop order near coast

★ As the Allies advanced into Belgium, the Germans struck, according to Erich von Manstein's bold plan, using armoured units – including the 7th Panzer Division – to drive a wedge straight through the Allied forces, all the way to the English Channel.

The German High Command was unnerved by the lightning-fast advance, however, and issued a stop order to the panzer divisions, which grouped around the port city of Dunkirk to prevent an Allied breakthrough. The British used the time to gather as many boats and ships as they could, and begin an evacuation by sea. The Allies managed to evacuate 335,000 British and French troops to Britain before the Germans attacked.

Further reading:
The Blitzkrieg Legend – The 1940 Campaign in the West (1995) by Karl-Heinz Frieser.



“SOUTHERLY WINDS BLASTED SAND THAT PIERCED THE SKIN LIKE NEEDLES”

A radio-equipped Chevrolet WB truck from the Long Range Desert Group. In the passenger seat is a Lewis machine gun and, on the bed of the truck, a Boys anti-tank rifle. March 1941.

G KEATING/NO 1 ARMY FILM & PHOTOGRAPHIC UNIT/IMPERIAL WAR MUSEUM

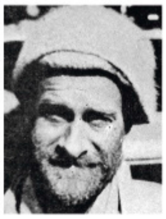
Long Range Desert Group

DESERT WAR MASTERS

The LRDG had licence to roam freely in its specialist vehicles, wreaking havoc behind German and Italian lines in the Libyan desert. This British special force was founded by Major Ralph Bagnold, a pioneer of desert exploration.

Text: **KARL-GUNNAR NORÉN**

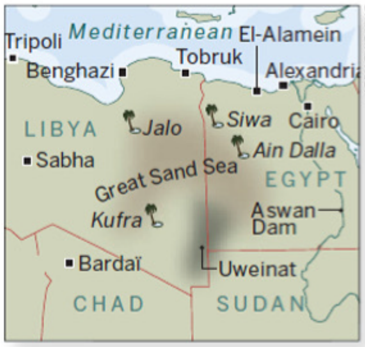
The Long Range Patrol (LRP) – later redesignated the Long Range Desert Group (LRDG) – stood ready after a rapid gestation. Established in just weeks, with men swiftly recruited and both vehicles and equipment adapted to desert conditions, the first three patrols stood ready. Soon, two depots were established, one at Ain Dalla, near the edge of the Great Sand Sea in the Sahara Desert, the other at Siwa Oasis. There, the new patrols would be able to fill up with petrol and water before treks across the Libyan Desert.



Ralph Bagnold.

THE NEW UNITS spent their time training for upcoming missions, mapping the terrain and setting up multiple stores for fuel, food and water along the Libyan border. They also used the 'underground' back road that led from Ain Dalla to enter Libya and covertly reconnoitre locations around the Kufra Oasis, while occasionally looting and destroying enemy supplies and equipment in the Mount Uwaynat mountains on the border with Sudan.

By September 1940, the first three patrols were ready for action. On the morning of 5th September, 'W' Patrol travelled to Ain Dalla at the border with the Great Sand Sea. Eleven days later, they reached the road between the Jalo and Kufra oases without drawing unwelcome attention from the Italian army. The road had recently been used and the wheel tracks in the sand allowed the soldiers to determine both the direction and frequency of enemy traffic. At this point, 'W' Patrol was exposed to the ghibli desert wind – southerly winds blasting sand that pierced the skin like needles and made it difficult to eat – along with 50-degree heat that, according to patrol member Lieutenant William Boyd Kennedy Shaw, made it feel like "your brain was thrusting its way through the top of your head".



ERIK LINDHOLM

Patrols had to cross the Great Sand Sea to enter Libya.

ON THE SAME day, the patrol came across two of the enemy's emergency landing grounds along the Jalo-Kufra flight path. They destroyed the petrol pumps, fuel tanks and a wind gauge at the first, then followed the trail to the next before setting around 500 litres of jet fuel alight. And still no Italians were in sight.

Four days later, the patrol entered combat for the first time when it met ►

two Italian lorries that constituted the fortnightly convoy to Kufra. A single burst of machine-gun fire over both vehicles was enough to both start and end the hostilities. The patrol collected its first prisoners: two civilian Italian drivers, two Arab guides, three Arab passengers and a goat. For Kennedy Shaw, the booty was more interesting: "2,500 gallons of petrol, a nice line in cheap haberdashery and, best of all, the bag of official mail". The letters, along with the information gleaned from interrogating the prisoners, were proudly handed over to British Army headquarters in Cairo.

ITALY HAD CONTROLLED Libya since 1912 and had 250,000 soldiers stationed there. In 1936, Mussolini attacked and occupied Abyssinia (now Ethiopia), and his ambition was to extend Italian control across the southern Mediterranean – usually at the expense of British interests. When Italy's ally, Germany, went to war with Britain, the situation in Allied-controlled Egypt became critical.

IMPERIAL WAR MUSEUM

Bagnold's sun compass.

British officer Ralph Bagnold realised that the Italian presence in Libya presented a deadly threat to the British protectorate in Egypt. The stretch of land from Mount Uweynat on the Egyptian-Libyan border to the key Aswan Dam inside Egypt was almost 1,300 kilometres long and as flat as a pancake. The Italians possessed desert forces that could cross the area in a few days, but neither the Egyptians nor the British were prepared to do anything until the dam was captured.

Before Italy's declaration of war, Bagnold had already proposed a mobile scouting force that could provide reconnaissance of the Libyan desert and prepare for an attack on the Italians if the threat became serious. His proposal was rejected by British headquarters in Cairo because commanders there thought it would provoke Mussolini. Bagnold's suggestion of taking motorised patrols across the 300-kilometre-wide Great Sand Sea was also dismissed as pure madness.

Perhaps Bagnold was as crazy as his commanding officer Percy Hobart, a man whom HQ had deemed

Road surveillance and raids on Italian transport convoys were common tasks for the patrols. Thick coats and hats protected them from the cold in the desert night.

GRAHAM/NO 1 ARMY FILM & PHOTOGRAPHIC UNIT/IMPERIAL WAR MUSEUM

Trucks and machine guns

★ Each patrol comprised two officers and 25 NCOs or privates who travelled in ten 30-cwt Chevrolets, specially equipped for 21 days and 1,770 km of independent operation. The patrols were led by a small mobile staff in a 15-cw Ford Pilot.

Initially, the vehicles were equipped with Lewis machine guns from World War I and Boys anti-tank rifles, but later they received more modern Vickers and Browning machine guns.

Officers and crew were recruited first from a New Zealand division in the Middle East and later with volunteers from Southern Rhodesia (now Zimbabwe), the British Scots and Coldstream Guards, plus the Yeomanry Cavalry.

A Long Range Desert Group shooter aims his Vickers machine gun. Photo from May 1942.

GRAHAM/NO 1 ARMY FILM & PHOTOGRAPHIC UNIT/IMPERIAL WAR MUSEUM

a fool because he dreamed of replacing the cavalry forces' horses with tanks. Hobart was fired, but his 'Hobart's Funnies' – modified tanks – went on to play a role in the D-Day landings in 1944. Bagnold didn't let rejection get the better of him, and quickly put forward his motorised patrol scheme again. This time it was taken seriously and quickly actioned.

When General Archibald Wavell was made general officer commanding-in-chief (GOC-in-C) of Middle East Command in Egypt in July 1939, he understood the urgent need for a reconnaissance-and-deep-penetration force along the lines that Bagnold had proposed; it was surely just a matter of time before General Rodolfo Graziani's 15 Italian divisions in Libya rolled across the border towards the Nile, Cairo and the Suez Canal. Newly appointed Major Bagnold was given a free hand and six weeks to kick-start the LRP.

BAGNOLD HAD BEEN a professional military man from a young age and, like many others, had spent several years in the trenches on the Western Front during World War I. After the war, he was posted as a liaison officer to Egypt, where he met motor enthusiasts like himself among the younger officers. Instead of participating in Cairo's nightlife, they preferred adventurous excursions to the desert.

They took off – in primitive Ford Model Ts – on their own small expeditions to the Sinai Desert, Palestine and Jordan. Bagnold was the primary force behind these pioneering treks.

Bagnold rejected – with good reason – the army's own vehicles. They were too difficult to camouflage, and couldn't handle the desert terrain. Four-wheel-drive vehicles were also dismissed due to excessive fuel consumption. Instead, Bagnold purchased Chevrolet WB 30-cwt civilian trucks from a local dealer and borrowed some more from the Egyptian army. In total, he assembled a collection of 33 Chevrolet 30-cwt and four Chevrolet 15-cwt command vehicles.

In the army workshops, Bagnold's sketches – based on his experiences during his private desert expeditions in the mid-1920s – were used to modify the new unit's vehicles. Each kilogram shed increased a vehicle's effective operating range. Roofs and car windows were removed since they added unnecessary weight, particularly as 360-degree visibility was needed, both to detect enemy aircraft and also to accommodate mounts for the machine guns. A practical loading platform was fitted with space for fuel cans and a radio, while so-called 'sand channel' stowage was set up and equipped with side extensions for high loads. Regular road tyres were replaced by specialist desert ones.

During expeditions into the desert, Bagnold had developed a special condenser that recovered the steam from the radiator and used it again so that precious water wasn't lost. He also designed a sun compass to simplify navigation in the desert.

Each vehicle was equipped with several machine guns. Each patrol also possessed a car with a radio and one with a more effective anti-tank gun, a Bofors 37-mm anti-tank gun at first, eventually replaced by a captured Breda 20-mm automatic gun. Gradually, the armaments were stepped up, and the vehicles were upgraded. By the end of the unit's life, the patrols possessed Jeeps with incredible firepower. ▶

General Archibald Wavell.

“DEMANDS ON SOLDIERS WERE HIGH. THEY HAD TO BE ENTERPRISING AND ABLE TO GO WITHOUT”

The LRP's demands on its soldiers were high. They had to be enterprising and able to go without for long periods to survive in the desert. Soldiers with experience of country life, who treated their trucks like prized horses, were preferred to those from towns and cities who took less care of their vehicles. All personnel were volunteers, and the crews were carefully selected from large numbers of applicants – it was quite common for non-commissioned officers to drop a rank to gain admission. It was easy to get kicked out of a patrol – poor attitude or performance resulted in soldiers immediately being returned to their original unit.

IN FEBRUARY 1941, the Long Range Patrol unit was reorganised as the Long Range Desert Group. It consisted of two squadrons with a total of ten patrols as well as a sabotage unit and a heavy section with supply vehicles. Within nine months, Bagnold had built a first-class unit that included 252 men and 97 specially equipped vehicles. Since the RAF did not want to provide air support, the group later bought two biplanes of its own on the civilian market.

“IT SHOWED HOW A WELL-LED FORCE WITH ONLY MODEST RESOURCES COULD STILL MAKE A DIFFERENCE”

While the Desert War raged back and forth along the Mediterranean coast, the LRDG often operated on month-long missions from the Siwa, Kufra and Jalo oases. With only light vehicles and weapons, the patrols could not openly engage armoured vehicles, nor could they storm well-defended forts.

Their best protection against air strikes was cunning, camouflage and mobility. Patrol tasks were adapted to the immediate needs of the war, which varied widely depending on how the British were faring. Observations of the road provided intelligence about enemy transport movements, which provided British headquarters in Cairo with a good basis for its planning.

DAMON CLEARY/IMPERIAL WAR MUSEUM

The LRDG's mapping and reconnaissance efforts became invaluable in planning the British offensive, while raids on the enemy's transport convoys prevented supplies and personnel from reaching the front and forced the Italians and Germans to transfer armoured vehicles and troops from the front to protect their convoys. Italian desert forts, originally built to keep the locals in check, also became a target and many surrendered to the LRDG.

ONE IMPORTANT MISSION was to lead Colonel David Stirling's special SAS force to the coast on what were dubbed "Libyan taxi service" jobs. Bagnold's desert patrols were masters of navigation and could lead commando forces both to their airfield targets and back to base after. Thus, the SAS was able to knock out as many aircraft on the ground as the RAF did in the air.

The Desert Group launched an early joint operation with the French in Chad to capture the key oasis at Kufra. Its last major mission in the Desert War, which ended in the spring of 1943, was to guide the Free French Forces and New Zealand troops to Tunisia, where the German-Italian panzer army was eventually defeated. But the war did not end there. The LRDG continued its operations during World War II both in Greece and the Balkans, and many of its recruitment, training and operating methods continue to inspire other special forces to this day.

The LRDG ceased to exist in 1945, but it is still remembered for two key reasons. First, it showed how the tenacity and vision of one man could change an army's mindset, and second, how a well-led force with only modest resources could still make a sizeable difference to a war's outcome.

Karl-Gunnar Norén is a writer and in 2012 participated in a research expedition in original WWII Jeeps that followed the tracks of the LRDG.

Further reading: The Long Range Desert Group: History & Legacy (2019) by Karl-Gunnar Norén and Lars Gyllenhaal ★ **Long Range Desert Group** (1945/2000) by W B Kennedy Shaw ★ **Long Range Desert Group Patrolman** (2010) by Tim Moreman. **Movie: Ice Cold in Alex** (1958) with John Mills.

The desert imposed huge demands on soldiers and equipment. Patrols were equipped to last up to 20 days in the desert terrain. Photo from May 1942.

German paratroopers

BLITZKRIEG FROM ABOVE

ULLSTEIN

The German air landing on the Danish island fort of Masnedø was the first time paratroopers were used in war. One month later, the Green Devils paved the way for German divisions again, this time in the Netherlands and Belgium.

Text: **BO SUNNEFELDT**

Operation Weserübung – the attack on Denmark and Norway – had been in place for a month by 9th April, the day of the invasion (*Wesertag* – Weser Day). However, Germany's decision to deploy its new weapon, *Fallschirmjäger* (paratroopers), was a late one. The need to quickly capture key areas such as large bridges and airfields strengthened the airborne troops' importance. There weren't many paratroopers available at this point and, considering the early summer's planned main attack across Western Europe, only one of five companies, around 700 men in total, was initially included in the plans to invade Scandinavia. Their impact would be further limited by a shortage of heavy weapons, meaning that surprise would be key to the operation's success.

On the evening of 8th April, the Fallschirmjäger Regiment I's 1st Battalion (I/FJR 1) was ordered ►

The Germans were quick to develop and train their paratroopers. In this photo from 4th October 1936, a group of soldiers land near Hamelin in Germany in full view of Adolf Hitler.

to ready itself for action from its base in Stendal, nine miles west of Berlin. The smell of engine fuel permeated the cold night air, and a frisson of excitement could be felt when the men were flown three hours later to bases in northern Germany in a Junkers 52 transport aircraft. For the first time, the paratroopers were informed of what would be expected of them in the coming hours.

“ARMED ONLY WITH PISTOLS AND HAND GRENADES, THEY STORMED THE FORT”

BEFORE THE OPERATION, it was crucial that aircraft bases in Denmark were captured to support the invasion of Norway, helping give German aircraft control of the airspace over the Skagerrak strait and the North Sea. A rapid advance by the army over the islands of Falster and Zealand was also important.

The plan was therefore to capture two airfields by Aalborg and secure these for reinforcing the supply of planes in the air. The attack would take place with a platoon (about 40 men) from 4th Company, I/FJR 1. The company’s remaining men would occupy the Storstrøm bridge between Falster and Zealand and capture a fort on the island of Masnedø.

Weserzeit (Weser time) was set for 05.15 German summer time – one hour earlier than Danish/Norwegian time. Nine Ju 52s set off with 96 paratroopers on board, their target the Storstrøm bridge. Twenty-two-year-old Alkmar von Hove was a newly appointed lieutenant and commanding one of the platoons tasked with securing the bridge:

“9th April 1940. Dawn is breaking... Paratroopers board the planes. Engines roar, the planes accelerate across the strip, tear themselves away from the ground and head north. The navy cruisers and their escorted convoy of transports are already in Kattegat Bay, heading for the harbour as they are ordered to do.”

Barely an hour after take-off, the platoon’s target – the 3.5-kilometre-long bridge – was in sight. The red light signalling it was time to jump lit up. Each soldier hooked himself up to the release line, the door opened and they jumped out in turn. Exit to landing took *“for some just a few seconds”*.

The Germans quickly set up their first machine gun in front of an unsuspecting coastal battery. Another group landed just 100 metres from it. Armed only with pistols and hand grenades, they stormed the fort, catching the defenders unawares and forcing them to surrender without a fight. Wasting no time, the Germans commandeered some bikes and headed into town to occupy other key positions and capture the bridge – all before the sirens belatedly raised the alarm.

PARACHUTE DROPS UNDER war conditions had so far only been performed by individual agents or small units performing reconnaissance or sabotage operations. At 05.00 on 9th April, 1940 at Masnedø, history’s first major war operation involving paratroopers was carried out. The 100 or so men captured their targets quickly and with no losses.

An hour after the attack at Masnedø, a second paratrooper deployment at Aalborg also proved a huge success, although by this point Denmark had already officially surrendered. An air-transported infantry battalion quickly occupied both airfields for the Luftwaffe’s use. So far everything had gone according to plan.

The main strength of the I/FJR 1 was heading towards Norway. During this operation, a couple of airfields would also be captured: Fornebu at Oslo and Sola at Stavanger. Sola was captured at 09.00 after a

Generaloberst Kurt Student.

Student led paratroopers

★ Kurt Student (1890–1978) began his officer career in the Air Corps of the German Empire, and was a fighter pilot and squadron leader during WWI. He was later involved in setting up the Luftwaffe after Hitler’s rise to power.

When Göring founded Germany’s first parachute battalion in 1938, Student was given responsibility for its further development. As Generaloberst, he was appointed commander of Germany’s airborne forces. Student led these through most of World War II, except for a brief period convalescing in the Netherlands in 1940 after being wounded in a ‘friendly fire’ incident. After the war, Student remained in British captivity until 1948, before moving to West Germany.

The transport plane Junkers Ju 52 could carry 12 paratroopers and flew in formations of three aircraft. The picture is from a training jump.

IMAGE FROM DIE FALLSCHIRMJÄGER VON DOMBÅS

company of paratroopers was dropped, but only after considerable losses. The thick fog that lay over Oslo forced the two companies heading to Fornebu to turn back, one of which landed in Germany. The second immediately returned to Norway after refuelling at Aalborg, but by their return Fornebu had been taken by an air-transported infantry battalion. Instead, just under 100 of the paratroopers were swiftly deployed in a futile effort to find and capture the fugitive Norwegian king and government.

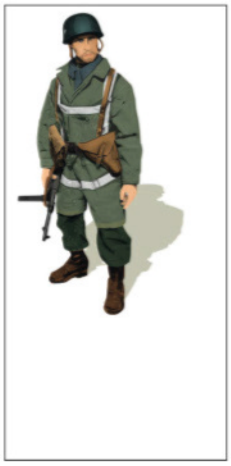
A FEW DAYS later, on 14th April, 1st Company, I/FJR 1 – destined for Oslo – was instead dropped at a railroad junction near Dombås further north. The purpose of this landing deep behind enemy lines was to sever the connection between the battling Norwegian forces in the south and a British landing at Namsos in the north. This Allied pincer operation threatened Trondheim, which the Germans had swiftly taken. Poor weather and anti-aircraft fire eventually put a stop to this plan. Darkness and the deep snow meant that only 63 out of 160 men were able to regroup following the drop.

After just over four days of fighting, the beleaguered Germans surrendered and were taken prisoner. The fact they'd held 50 civilians effectively as hostages provoked particular anger, but the force was freed when the fighting in Southern Norway ceased. However, further north in Narvik, General Dietl's forces were hard-pressed by the Allies. As another paratrooper battalion took part in the blitzkrieg against Belgium and the Netherlands on 10th May, survivors from Dombås volunteered to be dropped in as reinforcements in Northern Norway. During the last week of May, more troops were air landed. Among others, a paratrooper battalion from the Netherlands and later 240 *Gebirgsjäger* (mountain hunters) – the latter after a crash course in sky diving.

A further paratrooper battalion – II/FJR 2 – arrived too late after I/FJR 1 marched into an abandoned Narvik on 8th June 1940. The Nazi swastika had cast its shadow over another country.

Twice in one month, the world had experienced the fulfilment of an ancient military dream: three-dimensional coverage on the battlefield. The road there had, however, been a long one. The first documented parachute jump was performed in 1306 in China. Leonardo da Vinci's sketch of an 'air gyroscope' appeared almost 200 years later.

Military use of the hot air balloon caught the attention of men such as Benjamin Franklin and Napoleon. The first balloon jump took place in Paris ►



LONEGARD&CO

Paratroopers were inserted during the invasion of Denmark and Norway in 1940.

► in 1797, and the Germans considered using balloons for air landings during the Franco-Prussian War in 1870-71.

Militarily, parachutes were used for the first time in WWI, initially to save pilots from observation balloons and later from aircraft. A US general's proposal in 1918 to drop a whole parachute regiment behind the German front line generated some interest but was ultimately considered pure fantasy – except in Russia. The Soviet Union led the development of airborne forces and possessed divisions for air landings by parachute or aircraft. During an exercise in 1936, over 1,000 paratroopers were dropped. Subsequently, thousands of men were flown in and landed, all under the watchful gaze of impressed international observers.

One of those who followed the parachute's development from an early stage was an ace pilot from World War I who became the driving agent behind German paratrooper development: Hermann Göring. Unrest in Germany after the war saw the victors reduce the constraints of the Versailles peace treaty with regard to police forces. When Göring, as Prussian Interior Minister, became chief of police in 1933, he was quick to establish a division that could be dropped by parachute to 'fight terrorism'. In reality, it was a paramilitary Nazi elite force that was used against political opponents, and it expanded during the growing internal struggle for control that followed the Nazi seizure of power.

WHEN GÖRING BECAME head of the newly created Luftwaffe in 1935, the police was organised militarily and incorporated under the designation Regiment General Göring. Then, 600 volunteers were recruited to *Fallschirmschützen Bataillon* (Parachute Soldiers Battalion) – the embryonic beginnings of German paratroopers, which was officially established on 29th January 1936. Jump training began in May at the newly created parachute school in Stendal, west of Berlin. Division commander Bruno Bräuer made the first jump. This up-and-coming general would later be accused of committing war crimes in Crete in 1942; following the war he was executed after being brought to trial.

The fact the Germans had paratroopers was well known to the outside world before the outbreak of war. Recruitment took place openly, troops participated in shows and exercises, and they were used in the German annexations of both Austria and the Sudetenland in 1938. However, no one – including the Germans – was certain about their size, organisation, role and tactical use.

The political background behind early paratrooper units influenced the Luftwaffe's decision that they would operate in small units far behind enemy lines. Missions included reconnaissance, sabotage,

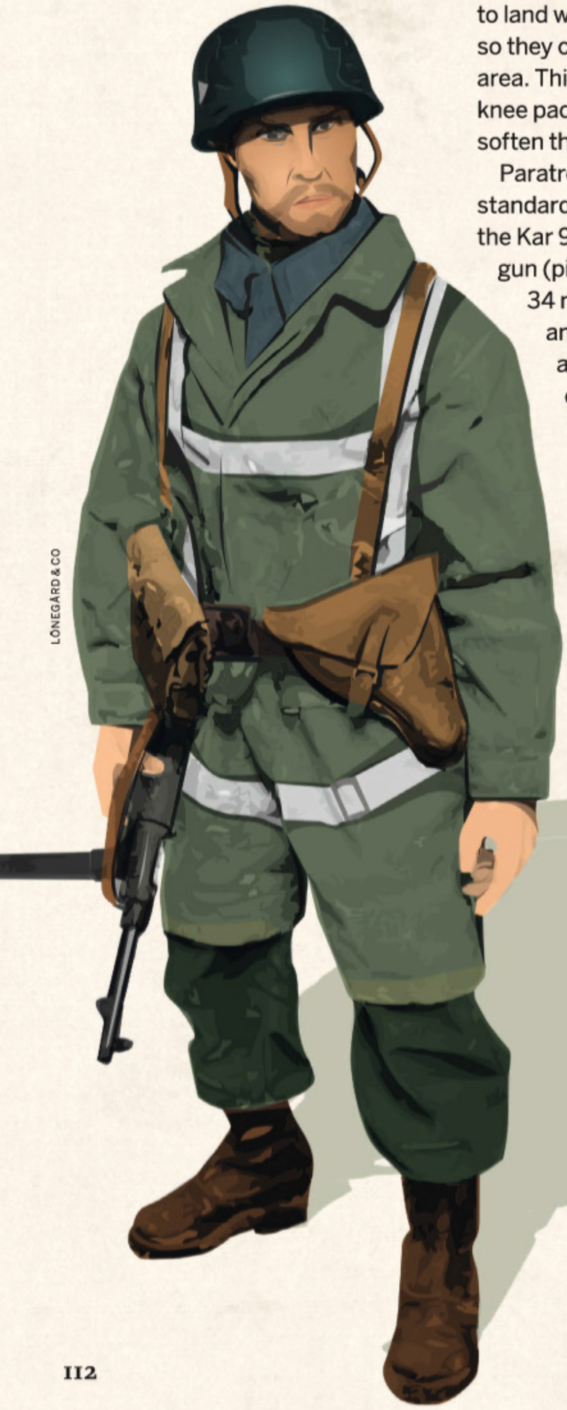
Specialist equipment ensured safe landing

★ The most important principle behind the paratroopers' equipment was that it should not make the jump problematic. This resulted in a redesign of the German standard helmet, removing the brim and neck protector. For the same reason, the paratroopers wore a jump smock over their uniform (*Fallschirmkittel*, more commonly known as *Knochensack*), which covered equipment during the jump.

Initially, paratroopers only carried weapons that could be worn unobtrusively under the jump smock. Heavier equipment was dropped in containers, and the soldiers were completely defenceless until they regrouped. As it was not possible to control the parachutes, the troopers had to land with their face down so they could see the landing area. This forced them to use knee pads and leather gloves to soften the landing.

Paratroopers were fitted with standard infantry weapons, the Kar 98k gun, the MP 38/40 gun (pictured) and the MG 34 machine gun. The ammunition was worn around the neck in long cartridge belts made from tent fabric.

Later, special models of support weapons were developed, such as lightweight artillery guns and recoilless armoured weapons.


LÖNEGÅRD & CO

German paratrooper, 1940.

kidnap and even assassinations. The army, which established its own independent parachute battalion in 1938, viewed paratroopers primarily as working in tandem with other army divisions, such as seizing control of bridges to support the advance of their own forces. In July 1938, General Kurt Student was appointed to establish and lead the *7th Fliegerkorps* (7th Air Division), which incorporated the army parachute battalion into the Luftwaffe, and included air landing units using parachutes and gliders. First and foremost, he did not like the concept of remote reconnaissance patrols. The newly incorporated *Grünen Teufel* (Green Devils) would be deployed in greater numbers to perform independent assignments that involved using the element of surprise to open new fronts. One of the most important mission types was taking control of airfields to support reinforcements from the air. This philosophy fitted well with Göring's grandiose vision, given he would do anything to avoid losing out in the battle for precious armament resources.

THE ONGOING STRUGGLE for Hitler's favour – often directly at odds with more conservative army elements – meant that parachute regiments were marketed as light airborne infantry, where their surprise, speed and aggression were key to successful blitzkrieg tactics. The advantage gained from quick air transportation of reinforcements had been proved during a German aircraft operation right at the start of the Spanish Civil War. A bonus effect of having mobile airborne divisions was that it also created uncertainty and tied up enemy resources that might otherwise be used elsewhere. This new insight caused the French to worry about their defence along the Maginot Line.

> **"AIRBORNE DIVISIONS ... OPENED UP NEW OPPORTUNITIES ON THE BATTLEFIELD"**

Airborne divisions undoubtedly opened up new opportunities on the battlefield. However, there were also huge limitations and disadvantages to parachute regiments.

Delivery was good thanks to fast air speed, but this was subsequently impacted negatively by having no vehicles on the ground. Protection, especially during the landing phase, was equally poor. Without access to heavy weapons, the divisions' firepower depended on cooperation with aircraft or other divisions' artillery – something that did not exist

A group of trainee soldiers board a Junkers 52 at the parachute school in Stendal, Germany. In order to pass their training, paratroopers needed to complete six jumps.

ULLSTEIN

Low-altitude jumps without a backup

★ When deploying paratroopers, planes usually flew in formations of three, each Ju 52 carrying 12 men. Twelve to fifteen aircraft were needed to transport an entire company. Jumps were done into the wind and at wind speeds of no more than 6 m/s. Parachutists jumped at one-second intervals while spread-eagled, their chutes deployed automatically by a line attached to the aircraft fuselage. To minimise exposure, paratroopers jumped from as low a height as possible – but always above 90 metres. Their descent rate of 5 m/s meant they were in the air for just under 20 seconds when jumping from 120 metres. The drop speed of 160 km/h spread paratroopers 500 metres across the sky. Night jumping was avoided because of difficulties navigating and regrouping in the dark, along with the risk of injury. There was no backup chute.

▶ initially or could not be practised to any significant degree. Paratroopers were also vulnerable, not only on the ground, but also in the air, while the terrain and the weather had a major influence on the landing. Huge demands were made on their levels of endurance, and ultimately very specific personnel, materiel and training was required.

KURT STUDENT HAD himself previously been a fighter pilot, which gave him valuable experience. He'd also been involved in training 300 German pilots in the Soviet Union within the framework of Germany's secret cooperation with the Soviet Union during the interwar years, and had acquired good knowledge of Soviet developments prior to Stalin's Great Purge of 1936. His credits also included substantial experience with gliders. He took on his role with great enthusiasm.

Recruiting for the new unit would prove easy. In addition to attracting soldiers with basic training in all weapon types, many young men enrolled for voluntary parachute training.

Everyone belonged to a generation raised and educated within a system where Hitler was a hero who, out of post-war chaos, had created strength, patriotic pride and a belief in the future. Flying was fashionable and the division's elite status – fashioned by the new, spectacular concept of air transport to the battlefield – held a particular attraction. Their limited numbers and the aura of mystery surrounding paratroopers were also appealing. Volunteering, the tough selection process and the intensive training created a positive self-image and a strong sense of camaraderie. Robust personal support from Hitler confirmed the view that they belonged to an elite group.

The Junkers 52 transport aircraft was proven, while the DFS 230 glider and the RZ 1 parachute were innovations that would be developed further during the war. New, lightweight armoured weapons and collapsible artillery were also produced for air landings. Attempts were even made to drop dogs and ponies as draft animals, but that did not work out well. Paratroopers' personal arms were changed gradually as automatic weapons replaced standard ones. The uniform also evolved; a helmet without a brim, new boots and the *Knochensack* became standard jump attire.

In August 1939, the airborne division comprised around 4,000 men: first and foremost, paratrooper regiment FJR 1 with three battalions – including the battalion that had previously belonged to the army – and a battalion II/FJR 2, a specialist cadre with another regiment. There was also a small glider unit, and an infantry regiment that landed with the transport aircraft.

NEWS OF THE outbreak of war reached the troops during a break on the autobahn outside Berlin. However, there was no air drop for them. They were ready in their planes and waiting for orders to take out targets behind the Polish lines, including the bridge over Wisla at Pulawy, but German ground forces reached the target first. The bulk of the division was nevertheless deployed to protect some airfields, as well as a staff area in Radom Deblin, 80 kilometres south of Warsaw, once the Polish invasion was over. As a result, there was much anticipation ahead of the airborne operations

CORBIS/SCANPIX

The paratroopers who attacked the Belgian fort at Eben Emael were well equipped with flamethrowers and explosive charges.

ULLSTEIN/GETTY

Paratroopers after the battle at the Belgian fort Eben Emael on 10th May 1940. A 70-man force succeeded in quickly putting the 'impenetrable' fort out of action after a surprise landing on the top of the fort by glider.

against the Nordic countries the following spring and the paratroopers' mission was clear: prevent Britain's apparent attempts to create a threat to the Reich's flank via Norway. The reason for the Führer's bold attack westward shortly afterwards was obvious, too: to nullify the Western powers' threat to the Ruhr area from the neutral states of Netherlands and Belgium.

Early in the morning of 10th May 1940, the German war machine inserted all available airborne resources into bridges and airfields at Rotterdam and The Hague. Four of five battalions were dropped in the war's biggest parachute operation so far. The urban environment provided the basis for several tactical innovations, including landing with seaplanes, dropping into a football stadium, and transportation via tram between the different battle zones.

The Dutch were not caught completely unawares, which resulted in significant German losses. Despite this, the air landing troops cleared the way for the rest of the army to move in, and the Dutch surrendered within five days. A quirk of fate meant the Allies would carry out a similar operation four years later in the same area as Student watched on. In Belgium, the drop came as a total surprise, as for the first time in history a force of 360 paratroopers landed in gliders by the giant Albert Canal along the country's eastern border. Before the invasion of Belgium began, two out of three bridges had been captured intact within minutes.

THE MOST SPECTACULAR effort was made against the key fortification of Eben Emael, which secured the canal and surrounding area with its guns sealed in sunken armoured turrets. Nine gliders landed on the fort's well-protected top. Seventy-one paratroopers with flamethrowers and specially designed explosives quickly overthrew the 'impenetrable' fort with its 750 defenders.

The operation provided brutal proof that the modern battlefield was three-dimensional, and it revealed what a small but well-drilled force could accomplish by using unconventional methods. The world was suitably astounded. ■

Bo Sunnefeldt is a freelance journalist and former officer with the Swedish Army.

Further reading:

German Paratroopers: Illustrated History of the Fallschirmjäger in World War II (2000) by Chris McNab, Aurum Press

★ **German Airborne Divisions** (2004) by Bruce Quarrie, Osprey's Battle Orders series.

Forces Françaises Libres

At the front to free France

Almost 200 French commandos scrambled ashore at Sword Beach on D-Day. They were a small but symbolically important part of the Allied force that liberated France from German occupation.

Text: **KARL-GUNNAR NORÉN**

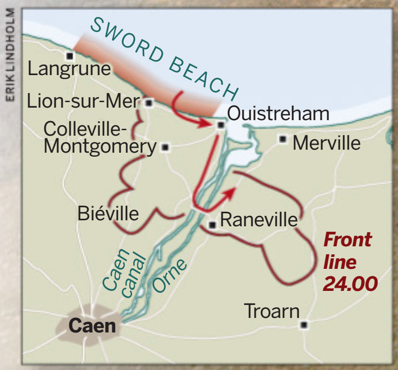
As the invasion fleet approached the Normandy coast on the night of 5th June 1944, two LCI (Landing Craft Infantry) vessels filled with French commandos plunged through the rough sea. They were led by Captain Philippe Kieffer, who, inspired by British commando forces, had set up a similar French force in England. Almost 180 Frenchmen joined the British No 4 Commando unit before the invasion. Each one was a volunteer, carefully selected for his skills. They trained hard before the mission and had memorised Ouistreham's streets and buildings: they knew how to overcome the German defences and that their success was vital to Operation Overlord.

OUISTREHAM WAS AT the eastern end of the stretch of coast selected for the invasion, and was well-defended. The task of capturing it and then holding the flank against attacking German forces was crucial to the entire Allied invasion. In a matter of hours, the Germans would be able to bring up the 21st Panzer Division and 12th SS Panzer Division, and it would take elite forces to oppose them.

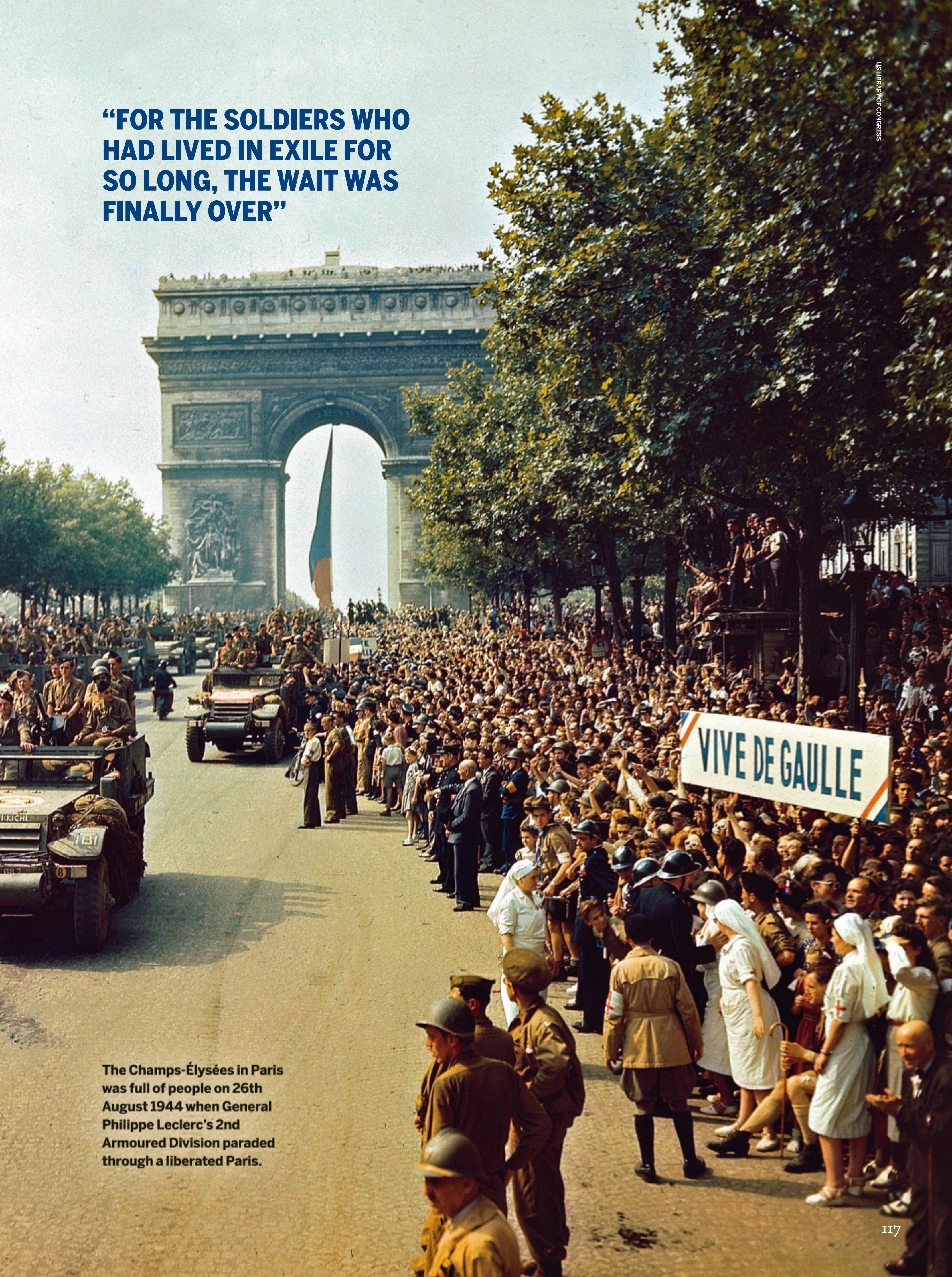
The men of No 4 Commando had been aboard the vessels since the last day of May, and the worst enemy faced so far had been seasickness. Now, they were going to face the reality of war. At 07.31, the French commandos landed on the Red part of Sword Beach's 'Queen' sector. For the soldiers who had lived in exile for so long, the wait was finally over. Now they, along with French pilots and sailors, were about to help liberate their country.

When France signed an armistice with Germany after the Nazis' successful offensive in spring 1940, ►

DE GAULLE AU POUVOIR
44



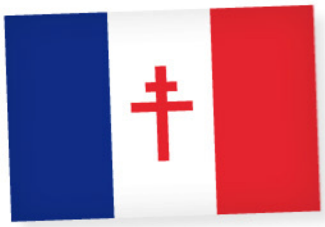
The arrows show the French commandos' advance on 6th June 1944.



“FOR THE SOLDIERS WHO HAD LIVED IN EXILE FOR SO LONG, THE WAIT WAS FINALLY OVER”

The Champs-Élysées in Paris was full of people on 26th August 1944 when General Philippe Leclerc’s 2nd Armoured Division paraded through a liberated Paris.

US LIBRARY OF CONGRESS



The insignia of the Free French Forces (*Forces Françaises Libres*) featured the Lorraine Cross over the French tricolor.

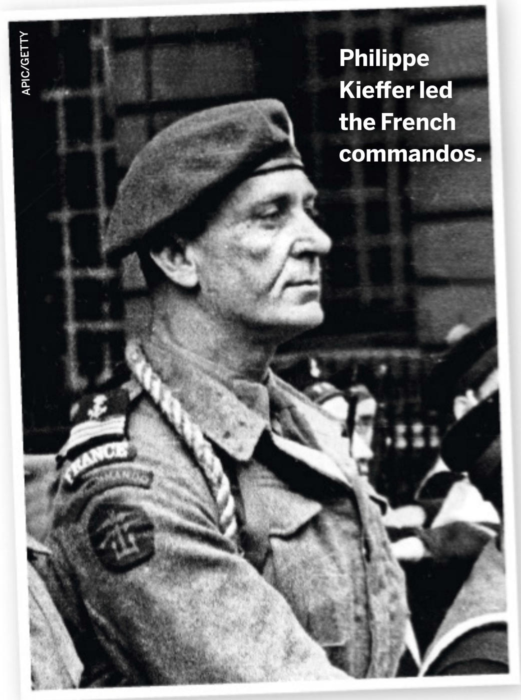
the nation was divided into three. The largest part, which contained Paris and the strategically important Atlantic coast, was occupied by Germany. The second part was administered from a small spa town called Vichy. There, French commander Marshal Philippe Pétain led a German-friendly puppet government that continued to oversee most of France's colonies, in addition to the substantial French fleet. The third part consisted of the remaining colonies, the French in exile and the growing resistance movement that operated from within France itself.

Working from Britain, General Charles de Gaulle called on the third part to unite and create the *Forces Françaises Libres* (Free French Forces). The units were not very large initially, but they grew over time, so that by June 1944, around 400,000 Free French were serving in the Allied army, air force and navy.

Forces Françaises Libres formally ceased to exist on 1st August 1943, when they merged with forces in Africa who had previously supported the Vichy Government. The latter had switched sides in autumn 1942, when the German hold over North Africa started to collapse. The new army was named *Armée Française de la Libération* (French Liberation Army).

Charles de Gaulle.

After fighting off resistance on the beach, No 4 Commando's main task was to join up with its brigade, 1st Special Service, and then hook up with Britain's 6th Airborne Division. Together they would hold the left flank of the Allied bridgehead during the invasion.



APIC/GETTY

Philippe Kieffer led the French commandos.

WITH THE FRENCH at the forefront, No 4 Commando took out the heavily fortified Riva Bella Casino in Ouistreham and the artillery batteries there, then neutralised the highest German observation bunker on the entire Atlantic coast. It was almost 16 metres high with six floors and had a rangefinder with a distance of 40 kilometres. The batteries that defended the River Orne and the Caen Canal could be fired on from here. The bunker was also used as the headquarters of the German force's Coastal Defence.

Ouistreham was not on alert, and the soldiers in the German 716th Static Infantry Division were probably asleep early in the morning on 6th June. The storm that had ravaged the coast for several days had eased during the evening, though the sea was still rough. The narrow wooden bridge over the wide ditch at the back of the casino was unmanned. The soldiers in this static division were older Germans and Soviet prisoners of war who had been allowed to choose between continued captivity or armed service. Individual levels of resistance varied somewhat, but overall the division defended fiercely. Fleeing troops received heavy casualties and German soldiers who abandoned their posts were shot immediately, but some got lucky, becoming prisoners of war for a second time, this time with the Allies.

The 3rd Infantry Division landed on the Red part of Sword Beach's 'Queen' sector before the French. They hadn't eliminated all the obstacles and one of the French landing vessels, LCI 523, crashed into one and hit the beach so hard that it became stuck. The water was not particularly deep, however, and the soldiers could still land via narrow ramps on both sides of the bow. Things didn't go so well for LCI 527: its propellers were fouled by an obstacle and its ramps were hit by enemy fire. As a result, the soldiers had to land under a hail of bullets by throwing scrambling nets over the sides of the boat. It was a slow process and some of the soldiers became so impatient that they jumped into the water and waded to shore, a risky manoeuvre considering each man was carrying a weapon, had a 40-kg pack on his back and pockets full of ammunition.

REGARDLESS OF WHETHER they landed directly on the beach or waded through the water, all the French were greeted by the same terrible sight. Young men from the first wave of the attack – some little more than boys – lay strewn across the beach, dead or wounded. Many had tried to dig themselves a pit to lie in, to protect themselves from the deadly bullets.

The British and French commandos were a little older

> **"YOUNG MEN – SOME LITTLE MORE THAN BOYS – LAY STREWN ACROSS THE BEACH"**

IMPERIAL WAR MUSEUMS

Early on 6th June 1944, the soldiers began to wade ashore at Sword Beach in Normandy. The Free French Forces were among them.

and, more importantly, had received better training; they knew it was suicide to stay, and while moving forward seemed the more dangerous option, it was their only hope for survival. They plunged forward through the openings in the barbed wire barriers and on across a minefield. Finally, those who had survived the race, turned left and ducked behind the buildings on the outskirts of Ouistreham.

114 of the men aboard the two landing craft, including six British signallers and medical orderlies who had accompanied them, reached the assembly point. 63 Frenchmen had either been killed or were so grievously wounded they were unable to advance further.

At the assembly point, the French and the small British contingent prepared for the next part of the operation. They took off their heavy backpacks (which contained equipment for later) to make fighting easier. Covered by small groups with Bren machine guns, the commanders checked which soldiers had reached the assembly point and reorganised the units accordingly. After the chaos of the beach, it was oddly quiet among the houses.

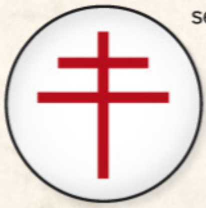
The leader of No 4 Commando, Colonel Robert Dawson, decided that it would be diplomatic to let the French lead the advance towards the casino under the command of Captain Philippe Kieffer. In this way, the commandos became the first French to arrive to help liberate their country.

Half of the French, under Lieutenant Alex Lofi, advanced along the main street, then turned into a side road and headed towards their objective. It was a route the troop had studied and trained hard for in the weeks leading up to its departure. Lofi's men passed several unmanned machine guns, but then they were hit by mortar fire, which resulted in a number of casualties. The soldiers pressed on and soon reached their target. The heavily fortified casino lay just in front of them, surrounded by hidden trenches and anti-tank ditches.

LOFI ORDERED HIS men onto the first floors of the neighbouring houses to open fire with all ▶

Flying Frenchmen in Spitfire Mark IX

★ French air forces also took part in the invasion of Normandy. Six of the RAF's French divisions (each with 12–24 aircraft) flew over the beaches. One of them was No 329 Squadron, which also had the French name 329 Forces Aériennes Françaises Libres. The pilots and ground crew originally came from a Vichy French squadron in North Africa, which joined the Allies in 1942. In 1944, pilots from No 329 participated in the aerial operations on D-Day in their Spitfire Mark IXs, which had white invasion stripes on the wings and fuselage.



The French air force's insignia shows the Lorraine cross.

FREE FRANCE'S fighter squadron, No 341 (Groupe de Chasse No 3/2 'Alsace'), also took part in the fight over the beaches. The pilot Pierre Clostermann flew two missions on the day of the invasion. The one at 17.30 was largely uneventful, but the situation was much worse three hours later:

"We were covering the 101st and 82nd American Airborne Divisions, while the 4th Division, which had just landed, marched on Ste-Mere-Eglise. We couldn't see much. A few houses were in flames. A few jeeps on the roads... My second patrol happened at night over Omaha Beach. It was a nightmare. The night was dark, with low cloud. In the gloom hundreds of aircraft were stooging about without being able to see each other, blinded by the fires raging from Vierville to Isigny. They were obviously fighting in this sector."

THESE WEREN'T the only French squadrons in action that day. No 342 Squadron, which consisted of the former Vichy squadrons 'Metz' and 'Nancy', performed low-altitude bombing runs over the beaches in Douglas A-20C Havocs.

Other French air forces included No 340, No 345 and No 346 Squadrons.

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A Spitfire Mark IX aircraft with invasion stripes on its wings and fuselage.

Soldiers from No 4 Commando in battle in Ouistreham. Sherman DD tanks supported the French.

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“WITHIN HALF AN HOUR, THE CASINO WAS CAPTURED AND THE FRENCH FORCE HAD TAKEN ITS FIRST 11 PRISONERS”

weapons, including two Vickers gas-operated K machine guns from the Royal Air Force, which had very high rates of fire and their PIAT (Projector, Infantry, Anti Tank), a British version of a bazooka, but without the back-blast. These weapons had little effect on the casino. The commandos attempted an infantry attack instead, but were repulsed.

MEANWHILE, CAPTAIN KIEFFER with the other French troop approached the casino from the rear, using the cover of a concrete wall. This was a tank obstacle that had not been seen on the aerial photos before the invasion, so was something the troop had not prepared for. However, in the end, the wall proved more of a disadvantage for the Germans because it provided cover for the French advance. Once past the obstacle, they too took up positions in the upper storeys of the surrounding buildings and opened fire. The defenders' response included bringing their 88-mm gun to bear on Kieffer's position, demolishing a house that his men had just left.

Then a French World War I veteran appeared and offered to show his compatriots where the German telephone cables went between the observation bunker and the batteries. After some digging, they found and severed the connection.

Kieffer was dissatisfied with the situation. Lofi and his men were pinned down by hostile fire. The captain was considering a desperate assault when he heard over the radio that some British amphibious tanks were now entering Ouistreham. Kieffer moved to intercept one. Shortly after, he returned triumphantly, on top of a tank. The British tank commander magnanimously allowed the French captain to direct the tank's fire on to the casino. The German guns became quiet and the commandos stormed in and cleaned up. Within half an hour, the casino was captured and the French commandos had taken their first 11 prisoners.

THE REMAINDER OF No 4 Commando had captured the battery at the eastern end of the beach at the mouth of the River Orne. Having achieved both its objectives, No 4 Commando reformed, collected its backpacks and marched 15 km to the town of Hauger, where, at 21.30, they made contact with the British 6th Airborne Division. Without this reinforcement, it's unlikely that the airborne division could have held its ground. However, once the French and British commandos arrived and dug in around the city, the Allies' left flank started to look more defensible – it was just after midnight on the 7th June. Sporadic fighting continued in the area, however, and it took four days for the commandos to fully secure their position. The

French lost 21 killed and 93 wounded, including Kieffer who was injured twice.

French naval vessels participated in the invasion, which was another conscious gesture on the part of Allied HQ. After France's defeat in 1940, Churchill feared that Hitler would use the French fleet to attack the Royal Navy. He therefore issued an ultimatum: give up the vessels to the British and sail them to Allied ports, or face attack from the Royal Navy. French admirals chose the latter and as a result, a number of French ships were sunk and 1,300 French lost their lives. The Free French and British sailors needed a task that could unite them. Including French naval vessels in the invasion was a political olive branch.

THE LIGHT CRUISER *Georges Leygues* avoided being sunk by the British off the coast of Algiers in April 1940. Like the rest of the surviving French fleet, she joined the Allies when Hitler occupied France in 1942. Less than two years later, in June 1944, *Georges Leygues*, along with her sister vessel *Montcalm*, provided crucial artillery cover against the German fortifications above Omaha beach. At the same time, the French frigate *L'Escarmouche*, and the escort ships *Aventure* and *Roselys,* protected US V Corps during its landing on the same beach.

By D-Day, the dreadnought-class battleship *Courbet* had been stripped of her engines, and the hull filled with concrete, so that she could be sunk to help create a 'gooseberry' breakwater at Sword Beach, thereby offering the Allies a type of temporary off-shore harbour. The Germans became obsessed with the *Courbet*. Despite the fact that the battleship was already at the bottom of the English Channel, she was torpedoed, bombed and shot at repeatedly. A few days after the last attack, the Germans broadcast a triumphant claim that the battleship had been seriously damaged and driven ashore with all her guns silenced.

For the Free French Forces and de Gaulle, it was symbolically important that the French were a part of the invasion. Before D-Day, General Dwight Eisenhower had already promised de Gaulle that French soldiers would be the first to enter Paris. In the time that followed, a free France and de Gaulle's Fourth Republic would come to be an important independent part of the Western Alliance. In June 1944, however, they fought in small units within the Allied forces as French soldiers, sailors and pilots with a single objective: to free their country.

Karl-Gunnar Norén is a military history writer.

Further reading: Battle of Normandy (2002) by Karl-Gunnar Norén ★ **The Fighting Fourth - No 4 Commando at War 1940–45** by James Dunning

Kufra victory encouraged the French

★ For French commandos, sailors and pilots, the liberation of Paris was the main aim, but it was the 2nd Armoured Division under General Philippe Leclerc that was given the honour of being the first to enter the French capital.

General Philippe Leclerc.

Leclerc, or Philippe François Marie Leclerc de Hauteclocque, to give him his full aristocratic name, was one of the legends of the Free French Force. From the French colony of Chad, which from the outset broke with Vichy, Leclerc's troops captured the oasis of Kufra in the Libyan desert and took the Italians' main outpost there. This was the first Free French victory, and also the place where the force pledged its oath: "We swear not to lay down arms until our colours, our beautiful colours, float on the Strasbourg Cathedral."

FROM KUFRA, Leclerc led the troops through the desert to Tunisia with the help of the British Long Range Desert Group (see page 102) and took part in the final battle against the German Afrika Korps. In 1944, Leclerc commanded the well-drilled 2nd Armoured Division. After the landing on Utah Beach on 1st August, it fought as part of General Patton's Third Army to secure the Allied bridgehead. Then Leclerc asked Patton for permission to leave the fighting in Normandy, "To no longer lose a man here and to liberate Paris, the capital of France." It was a large-scale political gesture that had the same psychological significance as when the French commandos were the first to enter Ouistreham.

BUT THERE were other political and military interests in play. President Roosevelt wanted to put the whole of France under military administration. But Charles de Gaulle was fighting to restore a free France and with a military force of 400,000 men at his command, it was impossible to ignore him.

On the evening of 23rd August, de Gaulle was in Paris. Early on 24th August, the 2nd Armoured Division left Rambouillet, 44 km south-west of Paris, and headed north-east to Versailles. The day after, the German commander of Paris, General Dietrich von Choltitz surrendered to Leclerc and the leader of the French resistance Henri Rol-Tanguy. Together, de Gaulle, the 2nd Armoured Division, Resistance fighters and US forces marched through a jubilant Paris.

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French soldiers from the 2nd Armoured Division battle German sharpshooters in Paris.

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